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TRANSACTIONS

OF THE

KENTUCKY STATE MEDICAL SOCIETY

TWENTY-SECOND ANNUAL CONVENTION,

HELD AT LOUISVILLE, APRIL 3, 4, AND 5, 1877.

LOUISVILLE:
PRINTED BY JOHN P. MORTON & CO., 156 WEST MAIN ST.
1877

OFFICERS FOR THE YEAR 1877.

PRESIDENT.

L. P. YANDELL.....Louisville.

VICE-PRESIDENTS.

J. L. DISMUKES, *Senior Vice-president*.....Mayfield.
W. B. RODMAN, *Junior Vice-president*.....Frankfort.

CORRESPONDING SECRETARY.

J. W. SINGLETON.....Paducah.

TREASURER.

J. A. LARRABEE.....Louisville.

RECORDING SECRETARY.

JAMES H. LETCHER.....Henderson.

LIBRARIAN.

HUGH F. MCNARY.....Princeton.

COMMITTEE ON PUBLICATION.

COLEMAN ROGERS, *Chairman*.....Louisville.
R. O. COWLING.....Louisville.
J. M. HOLLOWAY.....Louisville.

MINUTES OF PROCEEDINGS.

First Day.

MORNING SESSION.

The Kentucky State Medical Society assembled at "Masonic Temple," in Louisville, on Tuesday morning, April 3d, at 10 o'clock, being called to order by the President, Dr. R. W. Gaines, of Hopkinsville.

The meeting was opened with prayer by Rev. Dr. E. T. Perkins, of St. Paul's Episcopal Church, who offered an earnest invocation to the "Throne of Grace" upon the deliberations of the Convention; after which Dr. L. P. Yandell, jr., Chairman of the Committee of Arrangements, welcomed the Society in the following words:

Mr. President and Non-resident Members of the Kentucky State Medical Society:

On behalf of your brethren of Louisville I welcome you to our city. As Chairman of your Committee of Arrangements I submit the following report: You are assembled in Louisville in accordance with a resolution passed at the last session of the Society making this the place of meeting for 1877, and your committee has endeavored to carry out, in their arrangements, the ideas expressed by you at your last session. The Kentucky State Medical Society, now twenty-three years old, is a corporate institution, solvent and independent, and free to go where it may deem best for its usefulness and prosperity. It is

a scientific association, rather than a social club, and in order to bring out this idea more prominently, and repress somewhat the purely social and convivial features which had come to occupy too much of our time, as well as to be a pecuniary burden in many instances, it was unanimously declared by a resolution, published in the last volume of your proceedings, that expensive public entertainments are discountenanced by the Society. Louisville being Kentucky's largest city, and having the largest representation of medical men in the state, it seemed well that the initiative step in a departure from a long-established custom should be taken by us. Intellectual culture and professional enterprise and acquirement are not confined to the larger and wealthier cities, and many of the lesser towns would long since have enjoyed the pleasure and benefit of the State Society's presence but for the stumbling-block of a costly banquet which was deemed an unavoidable event of our yearly meetings. From the printed programmes, which will be handed to each of you, you will learn the further arrangements. In order that any desired corrections or suggestions may be made I will read the programme. Receptions will be given on Tuesday evening at Dr. D. W. Yandell's, Chestnut Street, between Seventh and Eighth, and on Wednesday evening at Hon. Isaac Caldwell's, Fifth Street, between Chestnut and Broadway. At 5 o'clock Tuesday afternoon the Society is invited to visit the University building, on the corner of Eighth and Chestnut streets. Wednesday afternoon, after the close of the afternoon session, the Society is invited to visit the City Hospital and Hospital Medical College, on Chestnut and Preston streets. Thursday, after the adjournment of the afternoon session, the members are invited by Surgeon Thomas J. Griffiths to visit the United States Marine Hospital.

Dr. Gaines, the President, then made the following short opening address:

Gentlemen: Through the goodness and mercy of divine Providence, a goodly number of the members of the Kentucky State Medical Society have been permitted to assemble in the city of Louisville to labor for the interest and advancement of our profession in this commonwealth. Let us render our devout thanks to Almighty God

that he has seen fit to bless the state we love with peace, health, and prosperity, and that so many of us yet remain in the land of the living. As your humble President, I gladly welcome each and all of you to this twenty-second re-union of an association whose history has been rendered illustrious by the talents and labors of many of the most distinguished members of our profession. It would ill become me on this occasion not to repeat my grateful acknowledgments for the honor conferred upon me one year ago in the city of Hopkinsville. I trust I am not insensible to the important, responsible, and delicate duties which devolve upon me as your humble executive officer, in the prompt, faithful, and impartial discharge of which I earnestly invoke your hearty co-operation. That the present convention of our Society may be characterized by the utmost harmony and with perfect fraternity is my ardent wish. That our metropolitan brethren will not (thereby disappointing the fears of many brethren who on this account are absent, or here reluctantly) bring into this Society the bickerings, the jealousies, the heartburnings, and the animosities which grow out of the differences between rival medical schools, and that every thing calculated to mar the peace and disturb the brotherhood of this honorable body may be repelled from this meeting as something that is "unclean" and vulgar, and not to be endured here, should be the earnest wish of every member who cherishes at heart the honor of our profession. That this convention may be productive of results the most beneficial and satisfactory to all concerned, and that we may all feel, when our annual adjournment is announced, that it was good to have been here, is my fond desire. Gentlemen, with an abiding confidence in your high intelligence, and in your love for our whole profession, I feel very confident that I shall not be disappointed in my expectations as your presiding officer.

The reading of the minutes of the last meeting was dispensed with, they having already appeared in the printed Transactions of the Twenty-first Annual Session.

The Chair announced the following Committee on Credentials:

W. H. Wathen, Louisville, R. M. Fairleigh, Hopkinsville,
Joseph W. Thompson, Paducah, C. H. Alexander, Louisville,
J. Russell, Owensboro,

To whom a large number of names of petitioners for membership in the Society were referred.

The President stated that a recess of ten minutes would be taken to allow members to pay their dues, as a very salutary law of the Society provides that those in arrears shall not take part in the proceedings.

Pending this collection there was considerable discussion relative to the names of members in arrears for several years being dropped from the roll of membership, there evidently being some misunderstanding concerning the law. The discussion was settled, and the matter referred to the Committee on Credentials, after Dr. J. M. Bodine had read the following by-law of the Society:

"All members who may become indebted to the Society for dues for two years, and fail or neglect to pay the same after due notice by the Recording Secretary, shall, by order of the President at the next annual meeting, have their names stricken from the roll of membership."

The following-named members were in attendance:

H. Trigg, Lagrange,
T. S. Bell, Louisville,
E. R. Palmer, Louisville,
R. H. Gale, Louisville,
Chas. Parsons, Louisville,
W. T. Owen, Louisville,
J. Baker, Shelbyville,
J. M. Bass, Elkton,
D. Johnston, Westport,
C. B. Blackburn, Louisville,
W. H. Wathen, Louisville,
P. G. Trunnell, Louisville,
J. M. Holloway, Louisville,
C. S. Fenner, Louisville,
L. B. Hickman, Hopkinsville,
J. H. Woosley, Bainbridge,

J. W. Singleton, Paducah,
R. W. Taylor, Hawesville,
H. Brown, Hustonville,
P. Gunterman, Louisville,
H. F. Barnes, Louisville,
R. O. Cowling, Louisville,
Frank C. Wilson, Louisville,
T. J. Griffiths, Louisville,
W. M. Griffiths, Louisville,
P. H. Bailhache, Louisville,
Coleman Rogers, Louisville,
D. W. Yandell, Louisville,
P. B. Scott, Louisville,
W. M. Fuqua, Hopkinsville,
L. J. Harris, Hopkinsville,
S. A. Foss, Laconia,
W. J. Byrne, Russellville,
W. W. Cleaver, Lebanon,
J. M. Clemens, Louisville,
O. D. Todd, Eminence,
D. N. Porter, Eminence,
John L. Cook, Henderson,
C. T. Keeney, Elk Creek,
M. E. Poynter, Midway,
J. O. McReynolds, Elkton,
James Knapp, Louisville,
W. S. O'Neal, Verona, Boone Co.,
R. C. Brandeis, Louisville,
W. H. Long, Louisville,
S. E. Winn, Glasgow,
C. H. Todd, Owensboro,
J. A. Ireland, Louisville,
L. P. Yandell, jr., Louisville,
John E. Crowe, Louisville,
Chas. Mann, Nicholasville,
J. T. Linebaugh, Guthrie,
A. A. Rowland, Guthrie,
C. H. Spillman, Harrodsburg,
S. P. Craig, Stanford,
C. J. Renfro, Pleasureville,
Oscar Newland, Hopkinsville,
O. L. Drake, Slaughtersville,
Geo. Beeler, Clinton,
Wm. Bailey, Louisville,
W. O. Roberts, Louisville,
L. P. Yandell, Louisville,
L. J. Frazee, Louisville,
M. F. Coomes, Louisville,
J. A. Octerlony, Louisville,
G. W. Ronald, Louisville,
J. A. Whitlock, Newstead,
S. J. Rhodes, South Carrollton.
H. F. McNary, Princeton,
A. D. Price, Harrodsburg,
D. O'Nan, Croppers, Shelby Co.
J. W. Holloway, Keene,
J. L. Dismukes, Mayfield,
J. M. Keller, Louisville,
R. M. Fairleigh, Hopkinsville,
A. Given, Louisville,
J. M. Bodine, Louisville,
Dudley S. Reynolds, Louisville.
Turner Anderson, Louisville.
J. G. Brooks, Paducah,
B. J. Moore, St. Mary's,
W. W. Goldsmith, Louisville,
J. A. Larrabee, Louisville,
D. D. Thomson, Louisville,
W. B. Rodman, Frankfort,
R. F. Logan, Shelbyville,
R. W. Gaines, Hopkinsville,
J. Hale, Owensboro,
F. M. Usher, Crutchfield,
Jos. W. Thompson, Paducah,

J. P. Thomas, Pembroke,
J. W. Pritchett, Madisonville,
R. H. Isham, Louisville,
W. B. Meaney, Louisville,
W. E. Ryan, Simpsonville.
H. Chenoweth, St. Matthews,
Lewis S. McMurtry, Danville,
Irvin Keller, Louisville.

While awaiting the report of the Committee on Credentials, the Chair called for the report of the Committee on Necrology. The Chairman, Dr. L. Beecher Todd, of Lexington, being unable to attend the meeting, forwarded a very full report of the necrology of the Society to date.

For want of time to read them, the memoirs attached were referred to the Publishing Committee and ordered to be printed in the proceedings of the Society.

Dr. J. A. Larrabee moved that the Society print fifty extra copies of the report, to be given the Chairman of the Committee, Dr. Todd. Motion carried.

On call for officers' reports, the following of the Recording Secretary was read, and, upon motion, adopted:

HENDERSON, KY., April 2, 1877.

Mr. President and Gentlemen: During the past twelve months I have forwarded to all the State Societies (the address of whose secretary or librarian could be procured), to the "American Medical Association," the "New York Academy of Medicine," New York City, the "College of Physicians and Surgeons," Philadelphia, and the "McDowell Medical Society" copies of our Transactions for the year 1876, and have, in exchange, received from a number of these societies their printed proceedings for our library. Some of these associations doubtless forwarded their exchanges direct to our Librarian. Several state societies have asked for full files of our Transactions, and I have referred their letters to the Librarian, Dr. John J. Speed, of Louisville. Dr. Stephen L. Burdett, of Lancaster, having removed to Florida, asks that his name be dropped from the roll of membership, and Dr. T. J. Shoemaker, of Morganfield, likewise tenders his

resignation. Dr. R. D. Winsett, corresponding secretary "Medical Society of Tennessee," informs me that Drs. Van S. Lindsley, W. A. Atchison, M. Baxter, Nashville, D. J. Roberts, Hendersonville, and C. E. Ristine, Edgefield, were appointed delegates from that society to the Kentucky State Medical Society. Dr. J. H. Southall, secretary of the "Arkansas State Medical Association," has written me at length, and inclosed a printed circular, relative to the state of medical affairs in Arkansas. This communication deserves the attention of the Society.

The total amount of dues collected during the year was $70.00, for which I hold the Treasurer's receipt. The total expenses, as per accompanying vouchers, was $45.95. There is a balance of $51.25 due Messrs. Martin & Co., of Paducah, for publishing the Society's Transactions for 1876. This sum should be paid as soon as the Treasurer has sufficient funds in his possession.

The Secretary would respectfully urge the speedy revision of the Constitution and By-laws of the Society, and would suggest that a provision be made in the revision for the annual appointment of a committee whose duty it shall be to audit the accounts of the Secretary and Treasurer, and report the result to the Society.

The number of membership at the close of the Twenty-first Annual Session, as per the Secretary's ledger, was.....	211	
The number resigned from April, 1876 to date.....	2	
The number deceased from April, 1876, to date.....	2	
	—	4
Present membership.....		207

All of which is most respectfully submitted.

JAMES H. LETCHER,
Recording Secretary.

The resignations of Drs. Burdett and Shoemaker were received; the communication of Dr. Southall referred to a special committee consisting of Drs. J. Baker, J. M. Keller, and S. J. Rhodes; the balance due Messrs. Martin & Co., and the Secretary's expense account ordered paid; and the Secretary's suggestion as to ap-

pointment of an Auditing Committee referred to the Committee on revision of the Constitution and By-laws.

The Treasurer, Dr. J. A. Larrabee, then made his report, which, upon motion, was received and adopted.

Dr. J. A. Larrabee, in account with Kentucky State Medical Society.

DEBIT.

1876			
April 4.	To balance on hand at last report		38 13
April 7.	To cash proceeds of Hopkinsville meeting, received from Dr. J. W. Singleton, Secretary		343 00
April 7.	To cash received from Dr. R. H. Chilton		6 00
Oct. 21.	To cash check from Dr. Letcher, Secretary		14 00
			$401 13

CREDIT.

1876			
April 7.	By cash paid Dr. Singleton as salary	50 00	
April 7.	By cash expense of Dr. Singleton, as allowed	48 70	
April 7.	By cash expense of Dr. Singleton, incurred at Hopkinsville meeting	13 45	
April 7.	By cash account of Corresponding Secretary, allowed	5 00	
April 7.	By cash account of Courier-Journal, advertising	5 25	
April 7.	By cash express on Transactions	75	
June 29.	By cash paid Dr. J. A. Hodges's draft on J. A. Larrabee, in favor of Martin & Co., Henderson	150 00	
Sept. 4.	By cash paid Dr. J. W. Thompson's draft on J. A. Larrabee, in favor of Martin & Co., Henderson	106 00	
Oct. 18.	By cash paid Dr. J. A. Hodges's draft on J. A. Larrabee, in favor of Martin & Co.	18 00	
Oct. 18.	By cash expenses throughout the year, postage, etc.	3 00	
	By balance cash on hand	98	
			401 13
April 2, 1877,	to balance on hand		98
April 2, 1877,	to cash received of Dr. J. H. Letcher, Secretary		56 00
			$56 98

The following report of the Publishing Committee was read and adopted:

PADUCAH, KY., April 2, 1877.

To the President and Members of the Kentucky State Medical Society:

Gentlemen—We, the Publishing Committee appointed at the last meeting of the Society, have the honor to report that we contracted with Messrs. Martin & Co., of Paducah, to print three hundred copies

of the Transactions of 1876 for $325, which amount is entitled to the following credits:

1876. July 15.	By cash		150 00	325 00
Sept. 8.	By cash		106 00	.....
Nov. 15.	By cash		17 75	273 75
	Balance due			$51 25

We take this occasion to express our indebtedness to the late Secretary, Dr. J. W. Singleton, for very efficient services in the supervision of the printing, proof-reading, etc.

It is to be regretted that typographical and other errors occurred in the volume, for which we respectfully ask the kind consideration of the Society.

J. W. THOMPSON,
D. A. MAXWELL,
J. G. BROOKS,
Committee.

An invitation from the Prentice Club, signed by W. F. Norton, jr., secretary, extending the courtesy and hospitality of the "Club" to the members of the Society, and expressing a hope that they would visit the rooms of the club whenever and as often as it suited their convenience, was received, and the thanks of the Society returned. Dr. T. S. Bell, of Louisville, also tendered the Society an invitation to visit the Blind Asylum, which was likewise accepted, and the Society's thanks returned.

The President then announced that the reports of Special Committees appointed at our last meeting would be called for, the first in order being that on the "Philosophy of Medicine." In the absence of the Chairman, Dr. James Wheeler, of Hopkinsville, no report was made. Dr. Irvin Keller, Committee on "Syphilis," and Dr. P. H. Bailhache, U. S. M. H. S., Committee on "Surgical Diseases of Military Life," were also absent.

Under call for the report on "Ophthalmology," Dr. Dudley S. Reynolds, of Louisville, Chairman, not having his report with him, stated that he would read it to-morrow or the day following at any hour that suited the Society. Owing to the absence of Dr. P. F. Johnson, of Owensboro, there was no report made on "Glaucoma." The report of Dr. John L. Dismukes, of Mayfield, on "Hysteria," was referred to the Committee on Publication. The reports of Dr. E. R. Palmer, of Louisville, on "Pyæmia," and Dr. J. W. Singleton, of Paducah, on "Malarial Complications," were not made.

Dr. R. O. Cowling, of Louisville, Committee on "Sprains," read his report when called upon, which, upon motion of Dr. J. M. Holloway, was referred to the Publishing Committee with instructions to publish. This report elicited an animated discussion, the debate being opened by Dr. J. M. Holloway, of Louisville, whose remarks, it was suggested by Dr. D. W. Yandell, because of their excellence, should be incorporated with Dr. Cowling's paper. Following Dr. Holloway were Drs. J. M. Keller and D. W. Yandell, of Louisville, C. H. Thomas, of Covington, and others.

At this point Dr. W. H. Wathen, Chairman of Committee on Credentials, read the following report:

C. J. Rademaker, Louisville,
C. H. Alexander, Louisville,
F. E. Corrigan, Louisville,
A. A. Marrett, Louisville,
C. H. Thomas, Covington,
C. B. Schoolfield, Covington,
E. M. Duncan, Eddyville,
C. Z. Aud, Hardin Co.,
C. C. Godshaw, Louisville,
S. C. Young, Christian Co.,
P. P. Truehart, Standford,
W. B. Oldham, New Castle,

I. P. Peyton, Hopkinsville,
J. C. Bondurant, Oldham Co.,
N. G. Leake, New Haven,
W. U. Martin, Lexington,
W. T. Simrall, Mt. Sterling,
J. C. Peyton, ——
R. M. Alexander, Louisville,
T. D. Williams, Washington Co.,
Jacob B. Walker, Scottville,
Archie Dixon, Henderson,
J. M. Young, Hodgenville,
H. K. Pusey, Garnettsville,
W. B. Doherty, Louisville,
J. R. Bailey, Logan Co.,
U. V. Williams, Franklin Co.,
Wm. Cheatham, Louisville,
D. L. Howard, Louisville,
John T. Williams, Louisville,
John E. Crowe, Louisville,
Jno. J. McDonough, Louisville,
Daniel Gober, Louisville,
R. H. Singleton, Louisville,
E. O. Brown, Louisville,
R. B. Gilbert, Louisville,
Ed. McD. Gober, Louisville,
L. N. Hume, Taylorsville,
W. B. Rodman, Frankfort,

Your Committee on Credentials has examined the applications for membership presented by the foregoing list of physicians, and finds that they conform to the constitutional provisions regulating the membership of this Society. We therefore report them for election.

We have had a number of applications before us which did not conform to the constitutional requirements, and for this reason alone they are not recommended. Respectfully submitted.

W. H. WATHEN,
R. M. FAIRLEIGH,
C. H. ALEXANDER.

Dr. L. P. Yandell moved that the Secretary be requested to cast the ballot for the Society, which he did in the affirmative, and the applicants recommended were declared duly elected.

The Society adjourned to meet at 3 P. M.

AFTERNOON SESSION.

The Society reassembled at 3 o'clock, Senior Vice-president, Dr. C. H. Todd, of Owensboro, in the chair.

The proceedings opened with a continuation of the discussion of Dr. R. O. Cowling's paper on "Sprains," at the conclusion of which Drs. J. Baker, of Shelbyville, and Joseph W. Thompson, of Paducah, ex-Presidents of the Society, were invited to take seats on the platform with the President. Dr. J. Baker, Chairman of Special Committee, appointed during the morning session to take into consideration the communication from the secretary of the "Arkansas State Medical Association," as referred to in the Recording Secretary's report, stated that the Committee deemed the subject-matter of the letter as belonging exclusively to the "American Medical Association," and therefore it declined taking any further action in regard to it.

The Committee on Otology, Dr. M. F. Coomes, of Louisville, read a report on "Some of the Causes of Deafness," which was, upon motion, referred to the appropriate Committee.

The next report in order was that on the "Physiological and Pathological Changes in Blood Corpuscles," by Dr. Frank C. Wilson, of Louisville, Chairman, which, after its reading, was, upon motion, referred to the Committee on Publication.

Dr. Irvin Keller stated that one year ago he had been

appointed to read a paper at this meeting on "Syphilis," but since that time having received a commission as assistant physician in the "Central Lunatic Asylum," had not been enabled to prepare the paper in question, and therefore begged to be excused. His request was granted, and Dr. K. appointed to report at the next meeting on "Nervous Diseases."

The President named the following Committee on Nominations, who are expected to report to-morrow morning:

D. S. Reynolds, Louisville,
J. Baker, Shelbyville,
J. A. Ireland, Louisville,
H. F. McNary, Princeton,
L. B. Hickman, Hopkinsville,
J. L. Dismukes, Graves Co.,
S. A. Foss, Laconia,
Geo. Beeler, Hickman Co.,
J. L. Cook, Henderson,
O. D. Todd, Eminence,
J. W. Singleton, Paducah,
J. G. Brooks, Paducah,
D. Johnson, Westport,
A. D. Price, Harrodsburg,
C. B. Blackburn, Louisville,
J. P. Peyton, Christian Co.,
W. B. Rodman, Frankfort,
J. Knapp, Louisville,
J. O. McReynolds, Elkton,
C. W. Parsons, Portland,
H. K. Pusey, Meade Co.,
Coleman Rogers, Louisville,
J. B. Walker, Allen Co.,
T. J. Griffiths, Allen Co.,
J. J. Pritchett, Madisonville,
J. W. Holloway, Jessamine Co.,
S. P. Craig, Stanford,
J. M. Young, Larue Co.,
W. W. Cleaver, Lebanon,
O. L. Drake, Webster Co.,
S. J. Rhodes, Muhlenberg Co.,
C. B. Schoolfield, Campbell Co.,
J. R. Bailey, Logan Co.,
L. N. Hume, Spencer Co.,
C. Z. Aud, Hardin Co.

On call for report on "New Remedies," the Chairman, Dr. J. A. Octerlony, of Louisville, stated that as the report of the Committee on "Materia Medica" would be so complete, covering the whole ground, he saw no

occasion for a special report on "New Remedies," and he would, in lieu thereof, some time during the meeting, read a paper on "Gall Stones."

Upon calling for report on the "Aspirator and its Uses," Dr. D. W. Yandell, of Louisville, the Chairman; stated that instead of reporting upon this subject as he had been appointed to do, he would, at any hour to-morrow, endeavor to interest the Society by making a few remarks upon some improvements in the plaster-of-paris dressing in spinal diseases, and illustrate the subject by applying the dressing before the Society. To-morrow morning at 11 o'clock was the hour named to hear Dr. Yandell's remarks.

The Committee on "Vital Statistics," Dr. D. N. Porter, of Eminence, made a brief suggestive report which was read by the Secretary, and took the usual course to the Publishing Committee.

The Chairman of the Committee of Arrangements, Dr. L. P. Yandell, jr., read an invitation extended the Society by E. C. Miles, manager, to visit at any time the Exercise Rooms of the Health Lift, which was accepted.

Dr. O. L. Drake, of Slaughtersville, moved that the nominations of the several officers of the Society be made before the Society in open session, and the vote taken by ballot, which, after some discussion by Drs. J. M. Keller, L. P. Yandell, jr., O. L. Drake, and others, was referred to the Committee on Revision of the Constitution and By-laws, to report at the next regular meeting of the Society.

Dr. Lewis S. McMurtry, of Danville, Chairman of a Standing Committee on "Epidemics," read his report, which, upon motion of Dr. J. M. Keller, was referred to the Committee on Publication with instructions that it be published.

The Committee on Credentials having recommended the following applicants for membership, they were duly elected:

Edward von Donhoff, Louisville,
J. U. McCormick, Bowling Green,
W. H. Coffman, Georgetown,
H. D. Rodman, Nelson County,
J. D. Neet, Versailles,
S. C. Yager, Sligo, Henry Co.,
B. F. Owens, Jeffersontown,
John Healey, Raywick, Marion County,
A. M. Morrison, Goshen, Oldham County,
John Fenley, Crittenden, Grant County,
F. J. Yager, Campbellsburg, Henry County.
D. M. Bagby, Walton, Boone County,
Jas. S. Watson, Pageville, Barren County.

The Chairman of the Committee of Arrangements reminded the members of the Society that they were invited to a reception at the residence of Dr. D. W. Yandell this evening, after the address of the President, and also stated that the Society was invited to visit the Medical Department of the University of Louisville.

Dr. W. H. Wathen, of Louisville, read his report on "Gynecology," which was referred to the Publication Committee.

Dr. J. W. Singleton, of Paducah, in a few eulogistic remarks, paid a beautiful tribute to the memory of Dr. B. M. Wible, deceased, and moved that the Chair appoint a committee of three to draft suitable resolutions with

reference to his death. Drs. J. W. Singleton, J. A. Larrabee, and Coleman Rogers were appointed such committee.

Adjourned to meet at 7.30 P. M.

EVENING SESSION.

The Society assembled at 7.30 o'clock, and Vice-president, Dr. Chas. H. Todd, presiding, introduced the President, Dr. R. W. Gaines, who delivered the annual address to a large and appreciative audience, composed both of ladies and gentlemen. Upon motion, the thanks of the Society were tendered Dr. Gaines for his interesting address, and a copy requested for publication in the proceedings.

Adjourned until to-morrow morning at 9 o'clock.

Second Day.

MORNING SESSION.

The Society met pursuant to adjournment, President Gaines presiding.

Drs. Murphy and Chipley, of Cincinnati, and J. W. Compton, of Evansville, Ind., being present, were invited to take seats on the stand with the President.

The call of Committees was resumed, and that on Obstetrics, Dr. W. H. Long, of Louisville, Chairman, came next in order. The gentleman stated that he had delayed the completion of his report that an addition of importance might be made to it, and asked further time to complete it and hand it to the Committee on Publication. Granted.

The following committees for various reasons were passed:

Improvements in Surgery.....W. O. ROBERTS, Louisville, *Ch'n.*
Finance.....HUGH F. MCNARY, Princeton.
Improvements in Practice of Medicine..TURNER ANDERSON, Louisville.
Hygiene.....W. H. SAUNDERS, Smithland.
Medical Ethics.....R. M. FAIRLEIGH, Hopkinsville.

The report on Materia Medica, by Dr. L. P. Yandell, jr., was read, and, upon motion of Dr. J. A. Larrabee, the thanks of the Society were returned Dr. Yandell and his paper was referred to the Publishing Committee.

Dr. J. W. Singleton, Chairman of the committee to draft resolutions of respect to the memory of Dr. B. M. Wible, deceased, made the following report, which was unanimously adopted:

The members of the Kentucky State Medical Society throughout this commonwealth have heard with feelings of the most profound regret of the death of Dr. Benj. M. Wible, late a member of this Association; and while we bow in humble submission to the sad providence which deprives us of a beloved associate and treasured friend, we have the melancholy satisfaction of knowing that he performed his work well while living, and we confidently believe that he will enjoy a rich reward in the better life beyond the grave.

Resolved, That in the death of Dr. B. M. Wible our Society has lost one of its best members, and the medical profession of Kentucky one of its chiefest ornaments, whose example, as a man and as a physician, is worthy of all imitation as a knightly devotee of medical duty, whose precious memory will long remain fresh and green in the hearts of his brethren.

J. W. SINGLETON,
COLEMAN ROGERS,
L. P. YANDELL, JR.,
Committee.

Dr. Dudley S. Reynolds, Chairman of the Committee on Nominations, presented the following report:

The Committee on Nominations begs leave to make the following report as its selection of officers for this Society for the ensuing year:

For President.....DR. L. P. YANDELL, SR., Louisville.
Senior Vice-president.....DR. J. L. DISMUKES, Mayfield.
Junior Vice-president.....DR. W. B. RODMAN, Frankfort.
Recording Secretary.....DR. J. H. LETCHER, Henderson.
Corresponding Secretary.....DR. J. W. SINGLETON, Paducah.

Treasurer.....Dr. James A. Larrabee, Louisville.
Librarian .....Dr. H. F. McNary, Princeton.
Publishing Committee..... { Dr. Coleman Rogers, Dr. R. O. Cowling, Dr. J. M. Holloway, } Louisville.

J. W. Singleton, *Secretary*. D. S. Reynolds, *Chairman*.

The report was adopted unanimously.

The Committee made no selection of place for meeting, but stated that a very cordial invitation through Dr. Rodman had been extended the Society to meet at Frankfort.

Upon motion of Dr. L. P. Yandell, jr., this invitation was accepted.

Dr. W. B. Rodman, of Frankfort, offered the following resolutions, which were adopted:

Resolved, That it is the sense of the State Medical Society that there should be a State Board of Health provided by the next legislature.

Resolved, That it is the duty of each member of this Society, in season and out of season, to earnestly impress the importance of this measure on their respective senators and representatives.

Resolved, That Drs. T. S. Bell, of Louisville, J. Baker, of Shelbyville, and W. B. Rodman, of Frankfort, be constituted a committee to take charge of this measure.

Dr. Lewis S. McMurtry, of Danville, Chairman of the McDowell Monumental Fund Committee, presented a verbal report relative to the labors of the committee, stating that their work had not been so successful as was desired, but still something was being done towards adding to the monumental fund, $434.05 having been collected. But this sum, he stated, was wholly inadequate

to the purpose desired. He read a letter from Dr. S. D. Gross, of Philadelphia, who urged that the profession of Kentucky should subscribe liberally, and who protested against the erection of an humble stone. The "Father of Ovariotomy" deserved a monument more imposing in its character, and Dr. Gross suggested that Europe be asked to subscribe, as Dr. McDowell's fame was world-wide.

Dr. J. M. Keller stated that it was not the *duty* of the physicians of Kentucky to do this work, but a *privilege* which they should gladly accept, and erect a shaft worthy of the great name of the dead surgeon.

Dr. John L. Cook, of Henderson, favored the petitioning of the legislature for aid in erecting a monument, as other great men had been so honored, and there had been none greater than McDowell.

Dr. J. M. Bodine wished to know the probable cost of erecting a suitable monument.

Dr. McMurtry replied that he had investigated the subject but partially, yet supposed that $2,500 or $3,000 would be a sufficient sum, and that the trustees of the Danville Cemetery would give a beautiful and eligible lot on which to build the monument.

Dr. Bodine thought Kentucky physicians should do the work themselves. He subscribed on the part of the Medical Department of the "University of Louisville" $200, and pledged himself to be one of twenty persons to increase the amount to $500, which would be but $15 each.

Other subscriptions were made, until the sum subscribed had increased to more than a thousand dollars.

The following petitioners for membership being recommended by the Committee on Credentials, were admitted: J. C. Bondurant, Oldhamsburg, Oldham County; W. T. Simrall, Mount Sterling; and N. G. Leake, New Haven, Nelson County.

The special order for this hour, 11 o'clock, being the remarks of Dr. D. W. Yandell on the Plaster-of-Paris Dressing in the Treatment of Spinal Curvature and Fractured Limbs, Dr. Yandell presented the subject in a clear manner, exhibiting the suspension apparatus as proposed by Dr. Sayre, with some modifications, and applying the dressings before the Society.

Dr. John L. Cook moved the thanks of the Society to Dr. Yandell for his very interesting remarks, and that he be requested to furnish a copy of them for publication in the transactions.

Dr. J. A. Larrabee also moved that Dr. Yandell be asked to furnish plates of his apparatus for applying the dressings, to accompany his paper. Motions prevailed.

Dr. L. P. Yandell, jr., then made a report on "Syphilis, Scarlatina, Measles, Variola, and Varicella," exhibiting an apparatus for administering vapor baths, which, upon motion of Dr. L. S. McMurtry, was referred to the Committee on Publication, and the thanks of the Society tendered both Drs. L. P. and D. W. Yandell for illustrations in connection with their papers.

On motion adjourned until 3 P. M.

AFTERNOON SESSION.

The President called the Society to order at 3 o'clock.

Dr. J. M. Keller asked that Mr. George A. Carnachan, an under-graduate of the Louisville Medical College, be allowed to present one or more cases of spinal disease, treated by the student, in order to show the results of Dr. Sayre's treatment as illustrated by Dr. Yandell this morning.

Mr. Carnachan exhibited a patient seven years of age, on whom he had applied the plaster-of-paris jacket the 10th of November last for Pott's disease, and which was removed the first of March with perfect restoration, except a vestige of the angular curvature remaining. The Society voted Mr. Carnachan its thanks.

An invitation from Dr. C. C. Forbes, the superintendent, through Dr. Irvin Keller, the assistant physician of the Central Lunatic Asylum, to visit that institution at Anchorage was received, and the thanks of the Society returned.

Owing to the absence of Dr. Thomas J. Griffiths, his report on "United States Marine Hospitals" was read by Dr. W. H. Long, and upon motion referred to the Committee on Publication.

The Chairman of the Committee on Diseases of Children, Dr. J. A. Larrabee, read a paper on Infantile Therapeutics, which likewise was referred to the Publishing Committee.

Dr. J. M. Keller moved a reconsideration of the vote which, on the day previous, defeated a resolution offered by Dr. O. L. Drake, which purposed taking from the President the power of appointing a nominating committee, and having the Society, as a body, elect its officers in open session by ballot. The motion receiving a second, Dr. Keller then made some explanatory remarks concerning the resolution, advocating in strong terms its great importance, and expressing a desire that it be carried.

Dr. J. A. Octerlony replied in favor of adhering to the old custom, as did also Dr. J. M. Bodine.

Dr. Drake then spoke earnestly in support of his original resolution, stating that he had advocated this step since he first became a member of the Society, and for the reasons that the elections according to the practice heretofore observed were not sufficiently democratic to suit his views.

Dr. Dudley S. Reynolds moved to lay the motion of Dr. Keller for reconsideration on the table, which, upon a call for the yeas and nays (Drs. J. L. Cook and J. M. Bodine acting as tellers), prevailed by a vote of 48 to 22.

At this juncture President Gaines requested Drs. J. Baker and C. H. Spillman to escort Dr. L. P. Yandell, sr., the President elect, to a seat on the stage, who, upon being introduced by President Gaines, said:

Gentlemen: I am deeply sensible of the compliment conveyed by my election as President of this Society, and I feel it the more on account of the circumstances attending it and the source from which I believe it comes. I have no doubt it had occurred to many of you

that my age and long service gave me some claims to the office; but I attribute my election to the partiality of my old friends and pupils, whose kind regard, outliving a generation of men, I place above the honor or the profits of any office that could be bestowed upon me. I esteem it a distinguished honor to be at the head of the Kentucky State Medical Society, which represents the medical profession of the commonwealth; a profession which holds every where a place among the pursuits of men esteemed the most scientific, enlightened, and liberal. The poet Crabbe, in those lines in which he sets forth so eloquently the objects of medicine, gives but a partial view of its purposes:

"Glorious its aim! To ease the laboring heart,
To war with Death, and stop his flying dart,
To trace the source whence the fierce contest grew,
And Life's short lease on easier terms renew;
To calm the frenzy of the burning brain,
To heal the tortures of imploring pain;
Or, when more powerful ills all efforts brave,
To soothe the victim no device can save,
And smooth the stormy passage to the grave."

Medicine seeks to accomplish much more than this. It has been chiefly busied with the cure of disease, its management and alleviation; but in all ages it has also been concerned about the prevention of disease. Hygiene has long been a prominent department of scientific medicine, and the study grows upon the profession. Much of the professional effort of our times is in the direction of preserving the public health. What sanitary science has done for the health of communities where it is cultivated, you all know. Referring to its results in England, Lord Macaulay says that "the difference in salubrity between the London of the nineteenth century and the London of the seventeenth century is far greater than the difference between London in an ordinary season and London in the cholera;" and that men, two hundred years ago, "died faster in the purest country air than they now die in the most pestilential lanes of our towns." Sanitary reform has done this, and so has added years to the average length of human life in all civilized countries. To estimate its beneficent effects we have only to compare Louisville of to-day with Louisville as it was a little more than half a century ago, when the town was decimated every few years by autumnal fevers.

This is known to every body who reads, but I doubt if it is generally considered that in effecting these great sanitary reforms medical men have been all the time working against their own pecuniary interests; that for every case of sickness they prevent by their science they are left with one patient less to treat; that every source of disease they put communities in the way of drying up is so much abstracted from their professional emoluments. Undoubtedly it is true that in proportion as we push forward sanitary science we are circumscribing our professional business. Let any one calculate, if he can, how much has been kept out of the pockets of physicians by the discovery of vaccination. And how much greater will be the shrinkage in the practice and fees if we succeed in stamping out, as we have hopes to do, those other contagious diseases which yield the profession so much, but which seem to be preventible by the plan suggested by the last president of the American Medical Association, or some other quarantine or municipal regulation? But the profession has never paused in making these regulations, and has gone on as earnestly with the work of promoting the public health as if it had been paid for it.

This is a part of the work to which this Society addresses itself. One of its objects is the promotion of state medicine. The questions about which you are busying yourselves have an interest to the human race. You are convened not to nominate a president, or governor, or congressman, but to consider of the best methods of treating disease, and to devise measures by which epidemics and contagious diseases may be extirpated. It is not probable that I shall meet you much oftener in these pleasant assemblages. As I look over the faces before me I see not one that was with me when we met in Frankfort thirty-seven years ago, in the convention out of which this Society has grown, and only a few of those who took part in its organization. Advancing years admonish me that my part of the work must be completed soon, and that younger hands will in a little while take up the task. What remains to me I shall strive to perform faithfully. As your presiding officer I shall watch zealously over the honor and interests of our Society, and hope to exhibit impartiality in all my rulings and actions. I thank you for the honor you have done me by this appointment.

Dr. W. W. Cleaver, of Lebanon, offered the following resolutions, which were unanimously adopted:

Resolved, That the thanks of this Association be tendered the Nominating Committee for selecting Dr. Lunsford P. Yandell for its President.

Resolved, That we recognize Dr. L. P. Yandell, sr., as the only living monument of the illustrious professors who have won immortal honor and glory for Western Medical Schools, and a noble specimen of a professor who never went back on the school of his creation, but stood by her through adversity and prosperity, and still annually gathers his children around him as the hen gathers her brood under her wings—the proud children of a gifted and venerable father.

Dr. John L. Cook, of Henderson, presented a paper on "Physiological Therapeutics in Fever," but for want of time did not read it. He stated that fever was essentially hyperoxidation of the tissues of the body, with dilatation of the capillaries, and to reduce fever, resort must be had to arterial sedatives to control the heart, and ergot, quinine, belladona, etc., as local sedatives to lessen the capacity of the vessels, in order to diminish the supply of oxygen to the system, and thereby prevent excessive combustion. Upon motion the paper was referred to the Publishing Committee.

The President of the Masonic Widows and Orphans' Home tendered an invitation to the Society to visit that institution, which was accepted and thanks returned.

Adjourned until to-morrow morning at 9 o'clock.

Third Day.

MORNING SESSION.

The Society was called to order at 10 o'clock by the Senior Vice-president, Dr. Chas. H. Todd.

Upon the recommendation of the Committee on Credentials, Drs. J. S. Coleman, of Louisville, and R. H. Moss, of Buffalo, Larue County, were elected members of the Society.

Dr. J. M. Keller presented the following resolution, and notified the convention that he would bring it up one year hence to be embodied in the Constitution and By-laws:

Resolved, That the election of officers of the Society shall be made by the Society as a body by *viva voce* vote, and that the Nominating Committee shall be abolished.

Upon motion of Dr. J. Baker, Dr. S. A. Foss, of Laconia, was added to the Committee on State Board of Health.

The following resolution, offered by Dr. R. M. Alexander, was adopted:

Resolved, That the President of the State Medical Society, through its Corresponding Secretary, be directed to designate two of the leading and most influential physicians in each county of this commonwealth, in addition to the present Committee of the McDowell Memorial Fund, and earnestly request them to solicit contributions in their

respective counties for said fund; that the request is a special one, made by the Society to them, and that an immediate and active interest by them in the premises will be duly appreciated; that they shall not confine themselves to the medical profession, but solicit from any one they may choose; that said physicians are respectfully asked to use their influence with their several legislative representatives to get an appropriation from the state for the same purpose; that the Corresponding Secretary be directed to address said physicians in one letter to each county, setting forth the merits of the case, and the obligations resting upon the profession in the premises, and solicit a reply as to whether or not they will assume the duties imposed in the request. If the response is unfavorable, let him address others, urging a compliance; that this mode of soliciting contributions remain in force one year; and that a report of the progress be made to this Society at its next meeting.

Dr. J. A. Larrabee, of Louisville, after a few explanatory remarks, read the following resolutions, which were adopted:

WHERAS, It has come to our knowledge that a bill known as the "Morrison bill," for the discontinuance of the "tariff on quinine," is at this time before the Committee on Ways and Means in the Congress of the United States; and

WHEREAS, The welfare of a large portion of the people in the Western States and Territories is concerned in the issue of this bill, as well as any movement which will enable them to obtain quinine at a less cost than the enormous prices now paid by the consumer; and

WHEREAS, The opposition to this bill set forth by the manufacturers and trade does not represent the desire of those who are engaged in the relief of suffering and want, but ignores entirely the necessities of this large population, many of whom are engaged in cultivating the soil and opening up new resources of wealth to the government in malarial districts; and

WHEREAS, Principles of justice and humanity alike demand free quinine and an open market for the competition of European manufacturers; and

WHEREAS, We, the members of the Kentucky State Society, in convention assembled, represent the sentiments of the people of this commonwealth upon this important subject; therefore, be it

Resolved, That we indorse the "Morrison bill," and do further pray that your honorable body will hear our petition.

Resolved, That a copy of these resolutions (printed) be sent to similar organizations of physicians' meetings in the various states.

Resolved, That these resolutions, with the signatures affixed, be furnished to our senators and representatives in the Congress of the United States at its next meeting.

The committee appointed at the last meeting of the Society (Dr. J. M. Keller, Chairman) to prepare a revision of the Constitution and By-laws, was granted until the next annual meeting to make their report.

Dr. Dudley S. Reynolds, of Louisville, Committee on Opthalmology, read his report, which was, upon motion, unanimously referred to the Committee on Publication. An interesting discussion followed the reading of this paper.

A paper by Dr. J. A. Octerlony on "Gall Stones" was read and referred to the Publishing Committee with instructions that it be published.

A communication entitled "Some Remarks on Typhoid Fever, with the Suggestions of a New Remedy," and the "Report of Five Analogous Cases of Impaction," by Dr. J. P. Thomas, Pembroke, was, without reading, referred to the Committee on Publication.

Dr. J. W. Compton, of Evansville, Ind., by invitation of the Society, read a paper on "Diseases of the Neck of the Uterus," which was also referred to the Publishing Committee.

President Gaines announced the following Standing and Special Committees and Delegates:

STANDING COMMITTEES.

Improvements in Surgery.....Dr. C. H. Todd, Owensboro.
Improvements in Practical Medicine.....Dr. John L. Cook, Henderson.
Obstetrics.....Dr. Coleman Rogers, Louisville.
Epidemics.....Dr. M. E. Poynter, Midway.
Hygiene.....Dr. S. P. Craig, Standford.
Vital Statistics.....Dr. U. V. Williams, Frankfort.
Materia Medica.....Dr. R. B. Gilbert, Louisville.
Medical Ethics.....Dr. R. F. Logan, Shelbyville.
Dermatology.....Dr. John D. Neet, Versailles.
Necrology.....Dr. R. O. Cowling, Louisville.
Finance.....Dr. R. M. Fairleigh, Hopkinsville.
Committee of Arrangements.....Dr. W. B. Rodman, Dr. U. V. Williams, } Frankfort.

SPECIAL COMMITTEES.

The Use of Iodine in Treatment of Syphilitic Diseases and Indolent Ulcers.....Dr. R. H. Gale, Louisville.
Mechanical Aids to Diagnoses of Diseases of Heart and Lungs.....Dr. Frank C. Wilson, Louisville.
Acute Rheumatism in Childhood.....Dr. J. A. Larrabee, Louisville.
Improvements in Sanitary Science.....Dr. James H. Letcher, Henderson.
Empyema.....Dr. J. A. Octerlony, Louisville.
Gynecology.....Dr. W. H. Wathen, Louisville.
Pathology of Chronic Inflammation of Joints and Deformities.....Dr. Edward von Donhoff, Louisville.
Septicæmia.....Dr. W. M. Fuqua, Hopkinsville.
Syphilitic Affections of the Brain.....Dr. Wm. M. Hanna, Henderson.
Excisions.....Dr. James M. Holloway, Louisville.
Spinal Deformities.....Dr. R. W. Gaines, Hopkinsville.
Ophthalmology.....Dr. D. S. Reynolds, Louisville.
Puerperal Convulsions.....Dr. S. E. Winn, Glasgow.
Secale Cornutum and Its Uses.....Dr. J. B. Walker, Scottsville.
New Remedies.....Dr. E. S. Gaillard, Louisville.
The Aspirator and Its Uses.....Dr. J. O. McReynolds, Elkton.
Immovable Dressings.....Dr. J. M. Keller, Louisville.
Diseases of the Genito-Urinary Organs.....Dr. Joseph W. Thompson, Paducah.
Modern Treatment of Fractures of the Long Bones.....Dr. C. H. Thomas, Covington.
Typhoid Fever.....Dr. J. R. Bailey, Ferguson's Station.
Meningitis.....Dr. R. H. Singleton, Louisville.
Naso-Pharyngeal Catarrh.....Dr. Martin F. Coomes, Louisville.

Contusions of the Eye-ball.....DR. WM. B. MEANEY, Louisville.
Post Partum Hemorrhage .....DR. CHAS. H. ALEXANDER, Louisville.
Scarlatina .....DR. JOHN J. MCDONOUGH, Louisville.
Phlyctenular Ophthalmia.....DR. WM. CHEATHAM, Louisville.
Uterine Surgery.....DR. W. H. LONG, Louisville.
Phthisis .....DR. L. P. YANDELL, JR., Louisville.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Thos. J. Griffiths, Louisville,
J. A. Octerlony, Louisville,
Frank C. Wilson, Louisville.
Dudley S. Reynolds, Louisville,
R. H. Gale, Louisville,
W. H. Wathen, Louisville,
J. M. Keller, Louisville,
David W. Yandell, Louisville,
E. S. Gaillard, Louisville,
L. P. Yandell, jr., Louisville,
J. A. Ireland, Louisville,
J. A. Larrabee, Louisville,
J. M. Holloway, Louisville,
C. B. Blackburn, Louisville,
E. McClellan, Louisville,
J. M. Bodine, Louisville,
W. M. Griffiths, Louisville,
Hugh L. McNary, Princeton,
Henry M. Skillman, Lexington,
L. Beecher Todd, Lexington,
Joseph P. Letcher, Lexington,
Wm. M. Hanna, Henderson,
Ben. Letcher, Henderson,
J. Hale, Owensboro,
Charles H. Todd, Owensboro,
L. B. Hickman, Hopkinsville,
R. M. Fairleigh, Hopkinsville,
J. N. Bass, Elkton,
J. Baker, Shelbyville,
E. P. Russell, Elkton,
J. O. McReynolds, Elkton,
James W. Singleton, Paducah,
Jacob B. Walker, Scottsville,
J. R. Bailey, Ferguson's Station,
Wm. B. Rodman, Frankfort,
W. W. Cleaver, Lebanon,
Joseph W. Thompson, Paducah,
John L. Dismukes, Mayfield,
A. A. Rowland, Guthrie,
George Beeler, Clinton,
J. P. Peyton, Caskeys,
J. P. Thomas, Pembroke,
C. H. Thomas, Covington,
O. B. Withers, Barkersville,
J. G. Brooks, Paducah,
Lewis S. McMurtry, Danville,
C. P. Mattingly, Bardstown,
A. D. Price, Harrodsburg,
O. L. Drake, Slaughtersville.

Dr. R. F. Logan, of Shelbyville, instead of reporting on the subject assigned him, "Genito-Urinary Diseases," read a paper on "Occipito Posterior Positions," which was appropriately referred.

Dr. J. Hale, of Owensboro, made a report of "A Case of Periuterine Cellulitis, complicated by Pelvic Peritonitis, successfully treated by the Aspirator," which took the usual course to the Publishing Committee.

Dr. J. W. Singleton, of Paducah, moved that the Society tender its most grateful thanks to the Committee of Arrangements, to Dr. David W. Yandell, and to Hon. Isaac Caldwell, and the citizens of Louisville generally for the kind and hospitable reception which has been given the members of this Society. Motion unanimously carried.

The Committee on "Diseases of the Throat," Dr. R. C. Brandeis, of Louisville, Chairman, presented a paper on the "Influence of Nasal and Pharyngeal Affections in Respiration and Nutrition," which was, without reading, referred to the Committee on Publication.

The following resolution, offered by Dr. J. W. Singleton, was adopted unanimously:

Resolved, That the Kentucky State Medical Society tenders its most grateful thanks to the reporters of the Courier-Journal, the Evening News, and the Commercial for the excellent reports which they have made of the meetings of the State Medical Society for April, 1877.

Dr. L. P. Yandell, jr., offered the following resolution which prevailed:

Resolved, That gentlemen purposing to read papers before this Society be required to notify the Secretary ten days prior to date of meeting.

A paper by Dr. R. W. Taylor, of Hawesville, on "Placenta Prævia," was read and appropriately referred.

Recess taken until 3 P. M.

AFTERNOON SESSION.

The Society reassembled at 3 o'clock, Vice-president, Dr. Lewis S. McMurtry, of Danville, in the chair.

Dr. L. P. Yandell, jr., moved that a committee be appointed whose duty it shall be to take steps looking toward the erection and maintenance of a "State Inebriate Asylum," which passed; whereupon the Chair appointed as such committee, Drs. W. U. Martin, Lexington, L. P. Yandell, jr., Louisville, W. A. Atchison, Bowling Green, Joseph W. Thompson, Paducah, and C. H. Thomas, Covington.

On motion the time for reading voluntary papers was restricted to ten minutes for each paper.

A communication on "Asiatic Cholera," by Dr. W. T. Owen, of Louisville, was referred to the Committee on Publication.

On motion of Dr. D. W. Yandell, Drs. T. S. Bell and J. M. Holloway were appointed a committee to examine into and report at the next meeting of the Society on certain discoveries in the Materia Medica made by Dr. J. R. Buchanan, of Louisville.

A motion of Dr. D. S. Reynolds, of Louisville, that Drs. John L. Cook and James H. Letcher, of Henderson, be added to the Committee on "State Board of Health," was carried.

The following resolutions of thanks were adopted:

By Dr. Geo. Beeler—

Resolved, That the thanks of this Society are tendered to Dr. R. W. Gaines, the retiring President, for his excellent address, and for the dignified and efficient manner in which he has performed the duties of President.

By Dr. L. B. Hickman—

Resolved, That the thanks of the Society are eminently due to Dr. Charles H. Todd, of Owensboro, the Senior Vice-president, for his able services as presiding officer.

Dr. D. W. Yandell offered the following resolutions which were adopted without dissent:

Resolved, That at all the meetings hereafter, all executive and miscellaneous, and other than purely scientific business, be limited to the first thirty (30) minutes of each morning session.

Resolved, That the length of time in reading each paper presented to the Society be restricted to thirty (30) minutes.

Resolved, That immediately after the reading of papers they shall be open for discussion, each member speaking to be limited to ten (10) minutes.

Resolved, That volunteer papers or communications be read on the afternoon of the last day of each annual meeting, and at no other time unless by unanimous consent of the Society.

Resolved, That a simple reference of papers to the Publishing Committee by no means carries with it a command to publish the same in the Transactions, but that the Committee shall be fully empowered to reject altogether or curtail in length all papers referred to it.

Resolved, That no committee be continued unless the committee promise to make a report.

Dr. W. B. Meany read a brief paper on "Glaucoma," which was referred to the Publication Committee.

Dr. J. Baker offered the following resolutions which were adopted:

Resolved, That this Society is in full accord with the American Medical College Convention, seeking to elevate the standard of medical education in this country.

Resolved, That summer schools, which enable students to graduate after from eight to nine months' study, are exerting an evil influence upon the profession.

Resolved, That a winter and summer course by the same school, and graduation at the end of each, tends to deteriorate the standing of the medical profession.

A paper by Dr. L. P. Yandell, on "Anæsthetics in Parturition," was read and referred to the Committee on Publication with instructions to publish.

The following resolutions, introduced by Dr. J. A. Larrabee, were passed unanimously:

The thanks of the Society were tendered Dr. L. P. Yandell, jr., Chairman of Committee of Arrangements, for efficient services rendered.

Resolved 1. That the thanks of the Society are hereby tendered Dr. Lehman for the display of Trommer's Extract of Malt in the hall during this meeting.

2. To H. S. Wellcome for the display of Pharmaceutical and fine Chemical Preparations, Gelatine-coated Pills, etc., of McKesson & Robbins, manufacturing chemists, New York.

3. To the firm of Keasley & Mattison for their exhibit of fine Pharmaceutical Preparations, Infants' Food, etc.

4. To F. H. Markham for exhibition of Caswell, Hazard & Co.'s medicinal preparations, etc.; and Simon N. Jones and R. A. Robinson & Co., for display of surgical instruments and appliances made in this hall.

Dr. J. N. McCormick moved that the thanks of the Society be, and are hereby tendered the several railroad and navigation companies and the hotels of the city

for the reduction of rates and other courtesies extended the members of the Society. Motion prevailed.

Dr. L. P. Yandell, jr., made a few remarks expressing the gratification he felt at having pleased the Society by his labors as Chairman of Committee of Arrangements.

Dr. L. P. Yandell, President elect, expressed the hope that the next session of the Society would prove, in every sense of the word, a grand success.

Adjourned to meet in Frankfort, first Tuesday in April, 1878.

JAMES H. LETCHER, *Rec. Sec'y.*

ADDRESS OF THE PRESIDENT.

BY DR. R. N. GAINES, OF HOPKINSVILLE, KY.

Ladies and Gentlemen of the City of Louisville, and Gentlemen of the Kentucky State Medical Society:

It has been the custom since the formation of the State Medical Society for the President to deliver an address upon some scientific subject on the first day of each annual meeting, and in accordance with that custom I appear before you to-night to discharge that duty; and while I may not be able to entertain you as highly as some of my distinguished predecessors, I beg your patient attention to the little I have to say; persuaded, as I am, of its importance. If I do not follow in the beaten track; if I venture to make some suggestions as to certain errors in the profession, it is not from any desire to be captious, but from conviction of the truth of my position.

The Kentucky State Medical Society year of 1876–7, now just closed, has been an eventful period in our history. Since the first Tuesday in April, 1876, our country has passed successive throes of excitement, political and social confusion, financial embarrassment and distress, as the result of a controversy which was eventually settled without bloodshed. Within the last few months the foundations of our social fabric have been threatened with destruction, the peace of the nation menaced with the fierce strife of internecine war, threatening to set at naught the laws of God and the holy instincts of a common humanity. The education, the civilization, the religion, and the laws of this great sisterhood of American states were imperiled in the midst of jarring factions, whose only guide is the lust of power and the emoluments of office. It is not for us to discuss the merits of the vexed questions which have so recently excited the fears of the honest people of these United States in their efforts toward

peaceful settlement. We can, nevertheless, congratulate ourselves that the horrors of a bloody civil war did not result from the late presidential question; that we have peace from the lakes to the gulf and from ocean to ocean; and that we may look hopefully forward to brighter prospects in the not-far-distant future if we are only true to ourselves and the demands of patriotism.

Men of science, freed from the contention and turmoil of a lately convulsed and dismayed body politic, may now equip themselves with the implements of peace, and press forward and upward in the ranks of the wise and good. Putting "on the whole armour" of our noble profession, with truth as our talisman and successfully established experiment as our guide, we shall find our reward in the increased elevation and advancement of rational medicine in the affections of mankind.

Remedial science is the first-born of peace and fraternity among men. Medicine is the child of peace; it has been fostered and sustained, and will finally be perfected, if it ever attains perfection, by the arts of peace. Men may contend in the fierce and bloody encounter of war; but when the battle is over, and even while it is raging, the surgeon, as the healing messenger of peace and relief, goes to the succor of the wounded, and becomes the beneficent instrument of peaceful blessing to the sufferer. The gentle physician at the bedside, the chemist in his laboratory, the pharmacist in his study, and the erudite medical teacher before his class, are all sovereigns in the commonwealth of peace, to whom the world looks as its chief earthly hope in seasons of dangers and affliction. Ours, then, is a communion most like the divine, familiar with the most tender and most delicate relations of families and friends from the cradle to the grave; called upon for deliverance from impending dissolution when deliverance is impossible; too often placed in position in which the faithful and confiding objects of our ministrations, firm in the belief of our almost miraculous power, are wont to say of us, "Though he slay me, yet will I trust him." How sacred is the burden of holy duty that rests upon us as medical men, and how thoroughly and completely should we be always qualified and ever ready for the duties, trials, and responsibilities of the physician's life. And what of the progress, what of the elevation and advancement of the cause so near and dear to our hearts

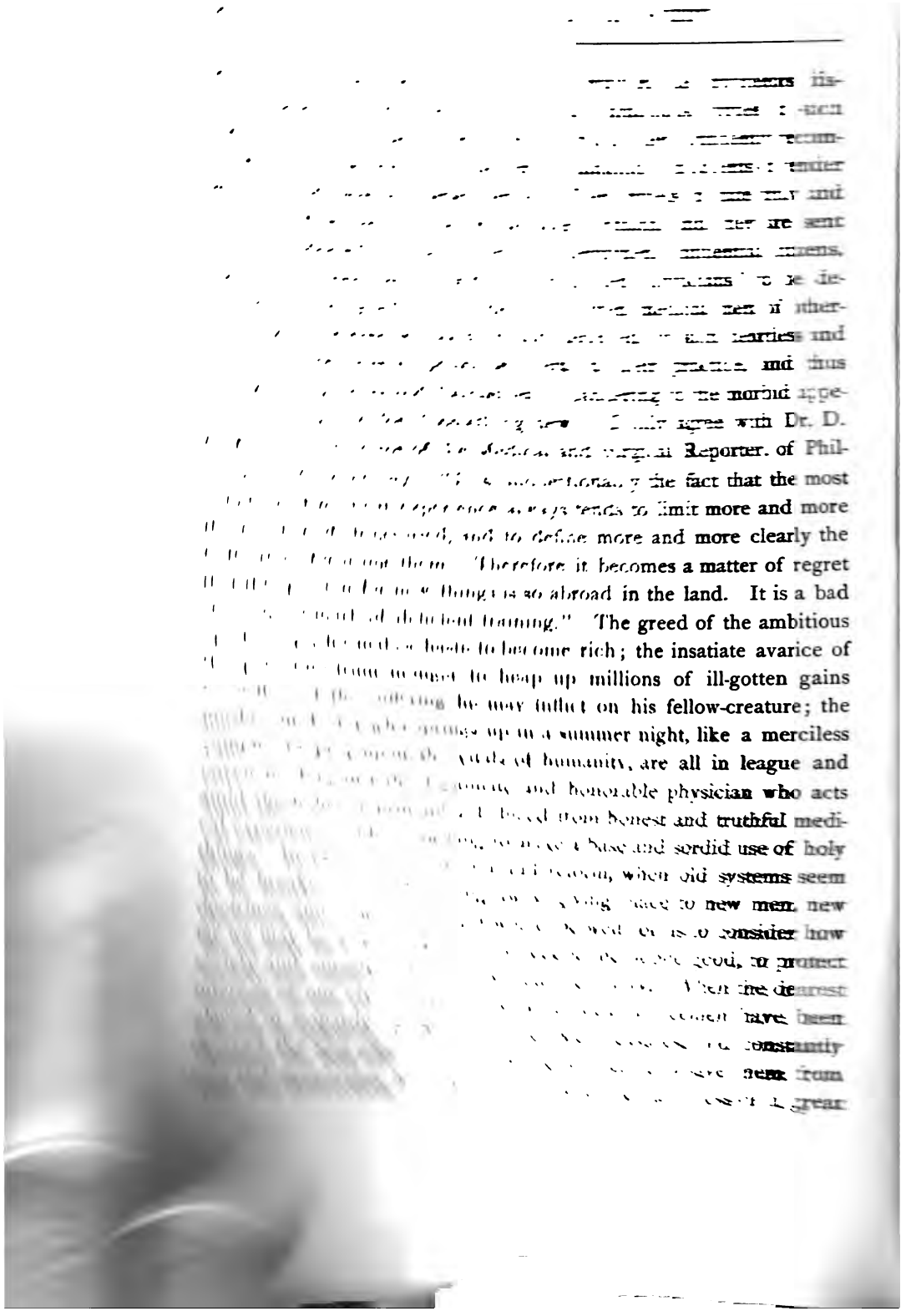
and to the good of our fellow-men? Shall we content ourselves with the present attainments of the medical profession in this country, or shall we make steady effort to keep up with, and, if possible, in advance of all other countries in Christendom in the means and appliances necessary for the cure of disease and for the promotion of the public health? Can it not be reasonably expected that a state that furnished the first successful amputation of the hip-joint, the first Cæsarean operation, and the father of ovariotomy, one of the greatest medical philosophers of the western continent, one of the most distinguished obstetricians of his day and generation; that has nurtured in its warm bosom the aspiring genius, many of the most eminent medical and surgical authors of the present time, will bravely and gallantly press forward in the ranks of medical usefulness and distinction, and cease not its labors until all possible perfection has been happily attained in the beneficent mysteries of the healing art? Have not Kentucky doctors a solemn and imperative duty to perform in pushing onward the car of progress in this enlightened age? Has not Kentucky a reputation to sustain in the annals of American medicine, which it has enjoyed for nearly half a century, and still enjoys equal to that of the best of her sister states? Are not Kentucky and Kentucky physicians deeply and vitally interested in the conservation of every thing that can adorn our profession and give inspiration and efficacy to its noble work and divine beneficence to its ministrations? The honors of the centennial year of our national independence (1876) have been brightened by one of the greatest medical events that the world has ever witnessed—the International Medical Congress at Philadelphia in the month of September last. Kentucky took an active and conspicuous part on that memorable occasion, with its "Century of Amercan Medical Literature," and its "Hundred Years of American Surgery." Its illustrious president, the venerable Dr. Gross, fully represented the medical manhood of his former home, our beloved state, and the mighty West did not forget that he is bone of our bone and flesh of our flesh. He stood among the crowned heads of medicine from Europe and America erect as in youth, stately and dignified in form and feature, and though covered with the snows of three score and ten, and with the medical honors of half a century clustering about him, his chief glory was that he belongs to the great fraternity of his breth-

ren in medicine throughout the world. Where is there a Kentuckian who is not at heart proud of the reputation of Dr. Samuel D. Gross? Who of us does not revert with pleasure and pride to the fact that Dr. Gross was once president of *this* Society; a practitioner of our art in your beautiful city of Louisville; a learned professor in your university; and in every thing except his birth a loyal Kentuckian? And now that the weight of years is pressing down upon him, years laboriously spent in devoted service to the human race, Kentucky would send her blessing to the gallant old commander in the army of medicine, and offer a fervent prayer that he may yet live long in peace and good health, surrounded by the fruits of his labors in behalf of his fellow-men.

In honoring the sacred names of our Drake and Dudley, our McDowell, our Brashears and Bradford, our Sutton, our Jackson, our Miller and Rogers, we pay just and holy tribute to the cause and the work which made them famous and forever dear to the hearts of all true Kentuckians. In recording the names and the labors of a Rawlins and a Wise, a Baker, a Thompson, and a Hodge, the living ex-presidents of this institution, in whose virtues and talents we claim a common interest, and for whom we cherish a fraternal affection, we preserve the spirit of brotherhood that prompted the formation of this Society and that of the laudable objects for which it has been laboring. Let us see that we "walk worthy of the vocation wherewith we are called," united as one man for the attainment of our purposes, omitting no duty and relaxing no effort that will enforce the just claims of Kentucky medicine and surgery throughout the world; remembering always our motto, "*Vis unita fortior.*" Let us endeavor to keep pace with the *substantial* "advancement" of the times in which we live. It is no longer a question of means and appliances, that will enable us to prosecute successful experiment and arrive at rational conclusions. Every means of investigation and examination are accessible to the humblest student of science. In fact it is a matter of serious import whether many of the so-called "deductions from experiment" are strictly in accordance with reason. Such being the case it behooves us to search these things and see whether they are so. As intelligent, truth-seeking, and conscientious men, there is a deep moral obligation resting upon us, the custodians of the public welfare,

to search assiduously and with fixed determination *for the truth*. We must "hew to the line, let the chips fall where they may." We must subject all new *medical* theories and "new remedies" to the crucible of an honest and careful analysis before we may even try them as a means of relief or cure. Polypharmacy is one of the greatest evils in the medical practice of the present day, because it is confused, uncertain, and unsatisfactory both to the patient and the doctor. But add to this the ill effects of the almost insatiable mania that now pervades all ranks and classes for *new inventions*, new combinations, and "new remedies," and we can hardly apprehend the extent of the dangers which now threaten the health and lives of the sick and afflicted throughout the globe. This madness for novelty has even taken hold upon our profession, and something must be done to circumscribe its evil influence and keep it within due and harmless bounds by medical men who have the moral courage to resist it and overcome it in spite of popular prejudices, or the most deplorable consequences to the well-being of society must follow.

The advocates of a wholesome and substantial progress are ready and willing to accept and adopt any thing and every thing that shall be found efficacious in the putting away of diseases incident to the flesh; but they are not willing to adopt the crude deductions of speculative theorists as rules of action. As a moral principle, no man has a right to experiment when health and life are at stake, until legitimate and thoroughly established means have been exhausted without avail. The interests of our physical and mental well-being and the sacredness of life are too holy to be trifled with. Let us beware how we forsake the beaten track of established principles for the so-called "new remedies" of which we practically know nothing. Nature is full of unexplored secrets concerning the laws of health and the cure of disease; but let us, as wise and prudent men, have a care that we be not deceived by false appearances, and that we do not accept the *ignes fatui* of "celebrated inventors and great discoveries" for the naked and unmistakable truth. Within the last decade self-known and self-styled "analytical chemists" of the United States have manufactured and compounded scores of "new remedies," and extensively advertised them in medical journals and in the newspapers to the profession and the public. Done up in patent style, inclosed in a



people that good health and robust life should be preserved as the foundation of our domestic peace and national prosperity. It is essential to the success of legitimate medical science that its faithful followers be united, firm, and strong, resisting to the uttermost every thing that may have a tendency to compromise its dignity and honor from within and from without, and especially that which savors in the least of professional or remedial prostitution. The cords that bind the votaries of medicine in one common bond of fraternal union, strength, and power are beginning to hang rather loosely around the body of our profession when such a distinguished character as the president of the American Medical Association, Dr. J. Marion Sims, of New York, advocates the questionable doctrine that we throw "wide open our gates, and let down the bars of medical ethics to irregulars in medicine and to female doctors, and to consult with them; to give them the benefit of our advice and influence, and to do right regardless of the school or *pathy* to which they belong." Against such procedure the medical men of Kentucky earnestly enter their solemn protest. So far as irregulars of the male gender are concerned the proposal of Dr. Sims is simply preposterous, and not to be entertained by reasonable men. While I suffer no man living to surpass me in admiration for and confidence in the angelic beauties and virtues of the gentler sex, I do not think that woman is fitted either by nature or can be fitted by education for the toil and drudgery, and what would be to her the indelicacy of medical practice. It is true that in a certain department of our profession a few females both in Europe and America have arrived at distinction and usefulness; but they have achieved reputation as doctors at the expense of unsexing themselves and by the loss of that modesty which is one of the chiefest attractions of ladies. Woman as a ministering angel in seasons of affliction and sorrow—her very presence is a blessing. Her gentle care and benign influence warms our hearts with joy and soothes our troubled spirits. But in the solid judgment and discrimination which are so indispensably necessary for forming correct opinions in diagnosis, and in the proper prescription of remedies for the relief of grave diseases, woman must, in the very nature of things, forever occupy a subordinate position in the medical art. She may reign in the sick-room as a watchful and patient nurse, under the instruction of the intelligent physician,

but she can never become a *doctor* in the true sense of the word until she ceases to be a woman. She never can meet the demands which men of strong minds often fail to meet in the performance of the complicated duties of the physician's life until her whole nature has been changed, and she made a man in "woman's clothes." Dr. Sims is certainly one of the most enlightened practitioners in America, but he commits a grave mistake when he advises his professional brethren to "let down the bars" which separate them as the devotees of rational science from irregulars of every description. No; rather let us of the ancient medical faith stand firm and steadfast in the manhood of our integrity. Let us give nihilism and blue glass their just deserts, opposing quackery and humbuggery in all their forms, whether they come in the shape of questionable "new remedies" or under the seductive attractions of petticoat practice.

At the last meeting of this Society a series of resolutions were adopted calling upon the legislature of Kentucky to either amend certain features of the present law establishing medical examining boards in this commonwealth or abolish them altogether. We think that said resolutions are in error, ill-timed, and calculated to defeat the objects which their distinguished author seems anxious to attain. The law appointing the medical examining boards in each judicial district by our general assembly is a step in the right direction, a rather liberal concession of non-professional lawmakers to the good of legitimate and honorable medicine for the benefit of our people. The law has proved beneficial in some parts of our state and in others it has been comparatively inoperative. The chief reason for complaint against the law arises from its non-enforcement. In our elective system all laws not *absolutely* sustained by the demands of an enlightened and healthy public opinion in their prompt and fearless execution, by the proper courts and officers, are comparatively inert, and fail to accomplish the designs for which they are passed. If the diploma-granting power is entirely given up by the medical colleges, and the whole right to grant the degree of Doctor of Medicine is conveyed to a body of men who are *entirely* disconnected with the interests and emoluments of medical teaching, a fruitful source of dissension and bitterness will be removed from certain medical centers, and the right of any competent

physician to teach the mysteries of his art to any person competent to receive and exercise them can not be called in question. If the present law governing the action of the medical examining boards in Kentucky be amended so as in future to compel all graduates and non-graduates in medicine or pharmacy to undergo a thorough and satisfactory examination before they can practice or dispense medicine, it would be a decided victory for the advocates of medical reform. We can not agree with the distinguished editors of the Louisville Medical News in their arguments against the power of state boards to grant diplomas and issue license to practice physic. They say, that "where these bodies (the boards) have been made more powerful, and places upon them become objects of desire, it is the political doctor who will be put there; the man who is the best poll-bully, the most successful lobbyist, and the most shrewd convention worker." We respectfully object to their pre-judgment of this important question. Doctors, like other men, should be free and independent. They should have the privilege of exercising their rights in politics and religion as well as in medicine. There are but few poll-bullies among the doctors of Kentucky; they are, as a class, among our best citizens; and if they choose to take an active part in political conventions, and even for a time become successful lobbyists in a cause they believe to be right, you have no just cause of objecting to them as medical examiners and even as learned professors in a splendid medical college. Such arguments as are advanced by the editors of the Louisville Medical News against the powers and privileges of a state examining board will not answer in the premises. Let them try again.

We fully agree with Drs. Cowling and Galt that "the profession *must reform itself.*" It is in the interest of that reformation that I now speak, and without intentional offense to any school or any man, when I say that the great majority of the medical profession demand that something be done to "lift ourselves from the slough into which we have fallen" on the diploma question. It is impossible to frame any law against which you can not find some objection, or one that will not work apparent hardship to some body. But the great and vital interests of medical science must be protected from imposition, innovation, wrong, and outrage for the benefit of suffering humanity and for its own good. I care not where you may place the power

of granting license to cure or kill, according to the established principles of science, so that power is, as far as practicable, a *disinterested power, entirely disconnected* with medical teaching and teachers, and as remote as possible from every influence or agency that may savor of individual injustice or favoritism, or that is against sound public policy. A government that will not protect its people in their lives, health, and happiness is not a good government. It is not for the benefit of Kentucky alone that I would see a medical reform, in many respects, commenced and successfully prosecuted on this western continent. Let us take steps to protect our fellow-men by every lawful means that we can command. Society should have the just protection of wholesome laws against imposition and wrong in medical affairs as well as in all other things. We have legislatures, governors, judges, and other officials to execute the will of the people concerning our temporal affairs. In matters of dollars and cents, and in every material interest connected therewith, every safeguard is thrown around the pocket and substance of every citizen; we have locks and keys, bolts and bars to keep us and ours in safety and security from thieves, robbers, and assassins; jails, penitentiaries, and the gallows to punish men who commit crimes upon the property and the bodies of mankind. In nearly every department of domestic and public life men and women are protected by the majesty of the law from direct or indirect wrong, violence, or damage; but the public health and life are but poorly defended against the evils and crimes of nostrum-venders and the illegitimate and dishonorable practice of medicine in this country. Have we a remedy? I answer, unquestionably yes, when our whole profession shall arise as one man and demand of the law-making and law-enforcing powers of these thirty-eight states the enactment and fearless execution of laws by which society may be delivered from the ills which are constantly menacing it through the merciless greed of patent-medicine mongers and the infamous ignorance of mushroom doctors. Men may argue earnestly against the propriety of seeking legislation with the view of protecting the interests of the legitimate and rational practice of medicine, and may impute to us motives of selfishness for doing so. But when we realize the length and breadth and height and depth of the mysteries of the healing art, and its lack of power often to secure the desired result,

even when that power is exerted by the wisest and best of our craft, how truly do we comprehend the fact that the health and lives of our fellow-beings should not be trifled with, and how terrible a crime it is against the laws of nature and of God to set at hazard the well-being and happiness of our fellow-creatures for the sake of sordid gain.

We fully indorse the sentiment expressed by the Louisville Medical News, that "the profession must reform itself;" and while the spirit of reform has been working out its own salvation in a public point of view in the last few years in the body politic; while a huge tidal-wave of reformation has been sweeping over nearly all ranks and occupations, political and social, its purifying floods have scarcely touched the great public on the medical question. Yes, I say, let "the profession reform itself." It has the brains and the power to "reform itself," and only needs *the will* to accomplish the noble purposes of a complete and thorough reformation. In order to meet and fulfill the increased responsibilities of the enlightened age in which we live, we must arise to the dignity and importance of our profession at home and abroad. I admire the ambition of that medical gentleman who is ready to teach the sublime mysteries of our art to the curious student. It matters not how humble or unpretending may be the edifice in which the great secrets of life, of health, of disease or cure are taught, so that they are taught truly and faithfully, and that the "the whole counsel" of our art is declared to minds fitted by the "gifts" of nature and by education to receive and practice them. But the honors of medical graduation must imply more than a diploma full of suppositions, titles, capitalized in beautiful Latin jargon, lithographing the fraud and imposing the sham on a too-confiding people. The public is no longer willing to accept a diploma as even *prima facie* evidence of a man's fitness and qualification to practice physic, and to deal with the sacred interests of health and life. In consequence of the indiscriminate granting or selling the degree to both young and old men in this country, the best men of our profession have been brought in competition with a class of doctors who may as well be called mule-drivers and mad-dogs as doctors of medicine, who have reduced the practice of physic to the level of huckstering, and brought injury, contempt, and contumely upon our high calling. This is all wrong. Let "the profession reform itself," and at once, in some way or

or other. "Where there is a will there is a way," and I am well satisfied that the best way to meet the difficulties of the situation would be for each and every state to appoint a medical examining board composed of men learned in our profession, who shall examine all persons who pretend to practice medicine, with or without remuneration, to have the sole power of granting certificates or diplomas independent of the medical colleges, and to pass none who are not thoroughly qualified. The adoption of this measure would remove a bone of contention from the colleges and open the privileges of medical teaching to every physician who has the talent and ability to teach.

In recording the events which have transpired since our last meeting, I must not omit to mention that death has invaded our ranks and removed from our midst one of our most devoted members. I allude to the death of Dr. James Lowry, of Shelbyville. For a correct account of his life and death I can not do better than to repeat the language of Dr. J. Baker, one of the ex-presidents of this Society, and a resident of Shelbyville, who says: "Dr. James Lowry, of Shelbyville, was born in Ireland, from which country he emigrated to Kentucky at the age of sixteen. For several years after his arrival in this state he supported himself by manual labor. About the year 1841 he entered upon the study of his profession at Lexington, and graduated in the spring of 1844. Soon after he graduated he came to this county and at once entered upon the active practice of his profession, and by his energy, skill, and excellent character soon rose into favorable notice. He was a man of excellent judgment and sound practical sense, and a skillful practitioner, devoted and attentive to his patients and much beloved by a large circle friends. Dr. Lowry was a genial, warm-hearted man, honest and truthful, and a sincere Christian, being for many years an office-bearer in the Presbyterian Church of Shelbyville. At the time of his death he was a member, and a live one, of the Shelby County Society, Transylvania Medical Society, State Medical Society, and the National Medical Society. He married a daughter of Cuthbert Bullitt, of Jefferson County, Kentucky, by whom he had a large family of sons and daughters, all of whom survive him. He died like a 'knight in harness,' being killed, as was supposed, by a fall from his horse on the 4th of December, 1876, while on his daily round of professional visits. The following action was had in Shelby County Medical Society:

"*Resolved*, That in the death of Dr. James Lowry the community has sustained the loss of a good citizen, a skillful, faithful, and most kind physician, and this society an earnest and faithful member.

"That the members of this society deeply deplore the death of Dr. Lowry, and that we, his fellow-members, in the name of the whole profession of the county, tender our sympathy to his family in their distress, and offer them our sincere, condolence; their highest consolation being in his well-spent life, his unblemished reputation, and a death where gloom is removed by the Christian's well-founded hope of a blissful immortality."

A few more words, and I have done. Though your humble servant has grown old with the labors and struggles of forty years as a practitioner; though he has grown gray in the service of his fellow-men, he has never for one moment regretted the choice of pursuit that he has made in life. He has ever loved his profession for itself, for its glories, and for the blessings that flow from its ministrations. He has ever looked forward to the auspicious day when it shall be "redeemed, regenerated, and disenthralled" from its errors and imperfections, and from the evil influences which war against it, both within and without, and through the exalted intelligence of its faithful followers be made a "perfect gift" from God for the good of his children on earth. Though I may not live to see the day, or even remain with you long enough to rejoice at its prospective coming; though I may soon have to yield my humble place in the hearts of my brethren to another, and I trust a wiser head than mine, it will be a source of sweet satisfaction to me in my declining years, and even at the portals of the tomb, to know that I was ranked and honored among the members of this Society, not for any distinguished merit of my own, but for my devotion to the interests, the honor, and the elevation of the medical profession.

ANÆSTHETICS IN PARTURITION.

BY L. P. YANDELL, M. D., OF LOUISVILLE, KY.

Anæsthetics have been in use among surgeons and obstetricians a little more than thirty years. Chloroform was introduced just thirty years ago. In a few months after its introduction it had made its way to all quarters of the civilized globe, and was in the hands of surgeons and accoucheurs every where. The number of instances in which it has been inhaled by parturient women may now be counted by the million. In Scotland, where it was first applied, it is used abundantly, not only by scientific obstetricians, but by the nurses and midwives of the country in most cases of labor. It has been administered under all conditions and circumstances of labor, to women of every constitution, in health and out of it, in all countries where scientific medicine is pursued. It has been found a real anæsthetic. Under its benign influence the sense of pain in the most painful labors has been annihilated. The anguish ordinarily attendant on child-bearing is not felt, but women pass through the process, if not on "beds of asphodel," at least on couches innocent of pain.

It is a remarkable and most interesting fact that in these thirty years that have elapsed since the discovery of anæsthetics and their use by the profession in every part of the civilized earth, no death has been reported as resulting from them in the lying-in chamber. No fact is on record going to impeach their safety in labor; and yet they are employed still, I believe, by a majority of accoucheurs timidly, with hesitation, if not under protest. With most practitioners, my impression is, it continues to be the exception to administer them in midwifery. Most mothers still bring forth children after the fashion of the first of our race, with those unalleviated by art, even when the medical attendant is present and the suffering is extreme. It follows,

that women are every day enduring a vast amount of torture which accoucheurs have the power to abolish. Is this suffering necessary? Is it salutary?

To the first question a negative answer may be given. It is not necessary. Among the lower animals we have evidence that parturition is not generally a painful process; nor is labor always attended with pain in the human, or even in women in artificial states of society. Among the savage tribes it is said to be attended by only a trifling degree of suffering. But I once saw in this city a refined, intellectual woman who had, half an hour before, given birth to a large male child at the expiration of three pains, which she scarcely recognized. She told me that she was lying on her bed reading when she felt the first, and that she continued to read without giving any heed to it. When the second came on, though it was a little more severe than the first, she was still able to read on. At the access of the third she was constrained to lay her book aside, and at its conclusion heard the cry of her child.

Pain, therefore, is not inseparable from parturition—a fact well established, indeed, before the discovery of anæsthesia; for observation had shown that women often bore children in a state of unconsciousness. Anæsthetics have established it by a thousand-fold superfluous evidence. Pain is not a necessary element in child-bearing.

The second question can receive but one answer. No one, probably, could be found ready to contend that there is any thing salutary in the suffering attendant on parturition. Pain, it will be admitted, on the contrary, is here, as elsewhere, an unmixed and often a most intolerable evil; and the only justification for not averting or abolishing it is that the anæsthetic is a greater evil than the pain itself. But does this objection hold in regard to chloroform or ether?

Undoubtedly the backwardness of the profession in resorting to these agents in ordinary labors is due to the apprehension of danger. They are confessedly potent for mischief. Death has resulted from their inhalation in too many instances to leave us in any doubt as to their fatal agency. But all these fatal cases have occurred in the practice of surgery or dentistry. Impossible as we find it in the present state of our knowledge to explain the fact, no woman in labor has died from the effect of chloroform or ether, while many patients

in the hands of surgeons and dentists have perished from their use. We are safe in assuming, I think, that no such accident has befallen lying-in women, for if such had occurred it would very certainly have been spread abroad on the wings of the wind, and all the world would, in a little while, have been made aware of the fact.

If no fatal result has followed the use of anæsthetics in midwifery in thirty years, the danger from them must be admitted to be small; and yet, there is a possibility that death may some day ensue upon their administration in some case of labor. And this lurking apprehension will probably for a long time yet render practitioners timid about their employment. But apart from the suspicion of their danger there are two less serious objections urged against them. Namely, that they retard labor, and that they increase the tendency to hemorrhage.

As to the first of these, I can affirm that in a practice of thirty years I have never felt sure that chloroform has ever checked or diminished the expulsive efforts in a single case of labor. I would not assert that I have never seen any such effect, but only that in all my practice I have never been assured of it. The action is rare if, as is asserted by many, it does occur, and may be dismissed as a slight objection to anæsthesia in labor.

I suspect that there is more force in the second objection. I incline to the belief that chloroform in some way promotes hemorrhage after delivery. I state it as a belief which is sustained by the testimony of so many practitioners that it may probably be taken as a fact. But we have in ergot an antidote to this evil. By the administration of a dose or two of this medicine just before the child is expelled we insure efficient uterine contraction and avert all danger of hemorrhage. So that any danger from hemorrhage appears to me too slight to form a serious objection to the use of chloroform.

These thoughts are submitted in the hope that they may encourage accoucheurs in a more liberal use of agents which are capable of preventing an incalculable amount of unnecessary suffering. If the experience of the third of a century by the profession all over the world has not established their safety, what amount of evidence is necessary to render it indisputable?

CHOLE-LITHIASIS.

BY DR. JOHN A. OCTERLONY, OF LOUISVILLE, KY.

This name, derived from the Greek (*Χολη*, bile, and *λιζος*, a stone), is used to designate that state of the system in which biliary calculi are formed. This disease, without being one of the most frequent, is yet far from rare. A good deal of practical knowledge concerning it has already been accumulated, yet we must admit much remains to be acquired, and much is still shrouded in obscurity.

The following paper is based upon the study of thirty-five cases observed and treated by me, and is offered as embodying the results of my studies and clinical experience with a disease which for years has been of deep interest to me.

It has been suggested by several distinguished observers that the formation of gallstones depends upon a peculiar diathesis. In support of this view they allege that in many of these patients there is an evident predisposition manifested by a constant formation of gallstones, and this in spite of all treatment; that the disease is often hereditary; that there is a certain close connection between the state of the system that induces the formation of gallstones and which results in the formation of urinary calculi; and, finally, that this constitutional state is *gout*. I have not been able to corroborate this view; on the contrary, I have been compelled to regard this disease as due to local or general causes entirely independent of any diathesis whatever.

Some cases are rebellious, and obstinately resist all our efforts to cure; but when one reflects how difficult it is to continuously and completely control these patients, and when the various features of the disease are taken into account, this rebelliousness to treatment is more readily explained by the persistence of local causes without assuming the existence of a peculiar constitutional vice.

In only two of my cases were any of their ancestors known to have

had gallstones, and I therefore conclude that heredity plays but a feeble part in their production. Morgagni thought that *hepatic colic* in a patient subject to *urinary calculi* gave strong reason for suspecting the existence of biliary calculi, especially if the patient be an adult. Subsequent writers have noted the co-existence of these two forms of lithiasis, and have expressed a belief in their mutual connection. I am led to believe it is quite rare and incidental, for it was not observed in a single one of my thirty-five cases. Neither did I ever find any of the usual manifestations of gout in the persons I have treated for gallstone. Gout is notoriously uncommon in women, but it is especially in them that gallstones are most often found.

Causation.

The etiology of gallstones is one of the "dark points" upon which much additional light must be shed before our knowledge concerning them can be satisfactory and complete.

Age is one of the general conditions operating at least as a predisposing cause.

Gallstones are most common after middle-age. My oldest case was in a woman seventy-six years old; my youngest was another woman aged twenty-two.

They have, however, been found in children *ten* and *two* years old, and even in new-born infants. These very young subjects did not, so far as I can learn, suffer from hepatic colic, and the presence of the concretion was only recognized after death. I do not know what is the earliest recorded age at which they have begun their travels and thereby occasioned trouble.

Sex.—The greater susceptibility of women than men to this disease is well known. It is said to be in the proportion of *three* of the former to two of the latter. In my cases the difference was even more marked, being twenty-nine women to six men.

Habit and Regimen.

The majority of persons suffering from chole-lithiasis are large eaters, and fats enter prominently into their dietary. Jaccoud insists that they are generally corpulent. A tendency to obesity was noticed by me in thirty out of thirty-five. A sedentary life predisposes to chole-lithiasis by obstructing that process of tissue metamorphosis

whose rapidity and perfection is so essential to health. It also promotes deposition of biliary constituents in the gall-bladder, which is strongly favored by *too prolonged intervals between* meals, and indeed by any retardation of the flow of the bile. Precipitation of the solid constituents of the bile may be determined by a variety of local conditions, which I will mention in detail. The general conditions just set forth act at most as a predisposing cause, which, without the action of a local cause, would be wholly inoperative so far as the development of gallstones is concerned.

Diet undoubtedly has a certain influence in the production of gallstones, both in man and in some of the lower animals.

It has been observed that biliary calculi are more frequent in the gall-bladder of stall-fed oxen and sheep who have been fed on dry hay than in those who have been at pasture. I have inquired as to the occurrence of gallstones in horses with the hope of throwing additional light on the general etiology of this disease, but was surprised to learn that among them it is so rare that only one case has been recorded. Percival* believes this immunity is due to the simplicity of the biliary apparatus in these animals.

Local Causes.

1. Increase in the solids of the bile to such amount that the physiological solvent can no longer hold them in solution, the excess being thrown down and forming biliary calculi. This mode of formation is beyond the reach of demonstration, but one can readily conceive it to be possible, and certain facts render it quite probable. Gallstones become frequent at the age when the bile contains a larger amount of cholesterin, and Chevreul has shown that in several persons with chole-lithiasis the bile was excessively charged with fats.†

2. A diminution in the amount of biliary solvents, cholate and choleate of soda and potassa, causing a precipitation of solids normally held in solution. This mode of formation is still less capable of demonstration than the former, but it is rendered probable by the effects that have been observed on administration of biliary salts in certain cases of chole-lithiasis.

* On the Diseases of the Digestive Organs of the Horse. London, 1855.
† Jaccoud Pathologie Interne.

3. The presence of foreign substances in the gall-bladder.

Dr. Thudicum* notes that in some cases the unclear part is composed of casts of the bile-ducts, and the central part often consists of small concretions of bile pigment which have fallen from the smaller ducts. A clot of blood, a globule of mercury, a fruit-stone, have been found as nuclei of gallstones. In one case the nucleus was composed of a lumbricoid worm, in another it was a pin. This is doubtless a rare mode of formation, but it does occur, which shows that when once a nucleus exists biliary matters tend to become deposited around it.

4. Catarrhal inflammation of the biliary passages.

This is the most efficient and probably the most frequent cause of gallstones. In health all the constituents of the bile are held in solution, probably by the *cholate of soda*. But when catarrhal inflammation of the mucous membrane of the gall-bladder sets in, its solvent power is lost, the bile is decomposed, and its solids are thrown down either in the form of a pulverulent mass or larger particles, which tend to increase by continued accretion.†

Drs. Thudicum and Gomp. Bezanez have shown that when bile is allowed to stand for a long time in a bottle, acid decomposition takes place spontaneously and pigment hitherto dissolved is deposited. That the influence of catarrhal mucus in the gall-bladder plays an important part in the decomposition and precipitation of bile, and the subsequent formation of calculi is rendered still more probable by analogous changes in the urinary bladder, owing to cystitis, so familiar to all that more extended mention is superfluous.

5. Another suggestion made by Thudicum is that decomposition of bile may also be due to a putrid ferment absorbed by the intestine; but of this I have seen no proof, nor of its agency in the production of gallstones.

Catarrh affecting the biliary passages within the liver may, though rarely, produce a similar result as when affecting the gall-bladder.

STRUCTURE.

The usual seat of gallstones is in the gall-bladder. They are less commonly found in the cystic, hepatic, and common choledoch duct,

*Thudicum on Gallstones, page 166.

†Jaccoud loc. cit.

and it is only seldom that they are found occupying the biliary canals within the liver. In this latter locality they are invariably quite small. Their volume varies from the small size of sandy particles to that of a hen's egg, and even larger,* and is in inverse ratio to their number.

When there is only a single calculus present it may fill the whole gall-bladder, and usually corresponds in outline to the form of the latter. The surface of the concretion may be rough or smooth, but the walls of its receptacle generally fit it closely, sometimes sending down processes of mucous membrane into the depressions which here and there furrow its surface. Multiple calculi, by reciprocal attrition and pressure, assume facet shapes and convex and concave surfaces, and thus come to fit perfectly together. Sometimes they present the form of regular tetra- or octa-hedral crystals.

In consistence they may be firm or waxy, but are most often brittle, break readily between the fingers, and soon crumble either spontaneously or on slight pressure. I have, however, in my collection, gallstones passed twelve and thirteen years ago, and which are still perfectly hard and intact.

The material holding the particles together is thought to be cholic or choloidic acid, or both; it has also been supposed to be mucus.

The color is subject to infinite variation; they may be whitish, brownish yellow, brown, green, blackish, mottled, or streaked. They are made up of many strata of different materials, and the differences in color between these various layers are often very great.

The calculi have a nucleus, sometimes multiple, chiefly composed of biliary pigment in combination with lime, traces of mucus, and earthy phosphates. Around this nucleus the materials that constitute the concretion become deposited in regular or uneven strata. A majority of the calculi are composed entirely of cholesterin, with a nucleus of calcareous matter, or pigment. Now and then this pigment is more abundant, and is sometimes uniformly distributed throughout the mass; at other times it and cholesterin form alternating layers. In some cases there is no cholesterin at all, and the calculi consist exclusively of carbonate and phosphate of lime.

Uric acid† has been found in them, and they generally contain traces of iron, manganese, and copper.

*See an interesting case, with illustration, recorded in the American Practitioner February, 1877.

† Stöckhard and Marchand.

The specific gravity is light, and varies with the composition; when chiefly of cholesterin they float in water. Ordinarily they are slightly heavier than this liquid, and sink in it.

There may be fullness of the gall-bladder, and when palpation is practiced the calculi are felt as hard, movable bodies, producing by contact with each other, a crackling sound, which may be heard with the stethoscope, and is said to resemble the noise made by tapping upon a bag containing nuts or dry beans.* A large calculus can be accurately made out, as shown by Buckler and others.

Biliary calculi being once formed may remain quiescent within the gall-bladder for an indefinite length of time.

I have never seen a case where the diagnosis could be made under such circumstances, though it is sometimes practicable.† In certain cases, however, they do not remain latent, but give rise to disturbances of different kinds.

1. The *calculi excite irritation within the gall-bladder.* Ordinarily they may exist even in large numbers without giving rise to changes in the mucous membrane; at other times they are merely the lesions peculiar to a catarrhal inflammation.† But in a smaller proportion of cases their presence induces suppurative inflammation, which may terminate in perforation, sometimes into the peritoneum, the stomach, the bowel portal vein, ureter, or into the pleura. But fortunately it is usually preceded by the formation of adhesions to neighboring organs. This is especially likely where the opening takes place externally. Such a case came under my observation many years ago through the kindness of the late Dr. Lewis Rogers, who was so justly distinguished in life and so deeply mourned in death. The patient, a woman of middle-age, had for a long time suffered from dull, recurrent pains in the region of the gall-bladder. After a while she had sharp, shooting, and then throbbing pains and fever. A swelling appeared, and an abscess formed, which broke externally, and several gallstones were discharged through the wound. In time the opening closed and the patient recovered.

Chronic inflammation may also be developed when the walls of the gall-bladder thicken and contract and the liquid contents become condensed by absorption of the water, and the gallstones become

* Petit.

† Jaccoud Path. Int.

welded together by a chalky mass lying in immediate and close contact with the contracted gall-bladder.

2. The gallstones are disturbed and travel along the ducts, giving rise in their migrations to the symptoms of hepatic or gallstone colic.

I have often found biliary calculi at the post mortem examinations of persons in whom their presence had never been suspected during life, and many persons pass small gallstones without any pain, especially at Carlsbad and Marienbad while drinking of these justly celebrated mineral waters; yet ordinarily the passage of one of these concretions is attended by characteristic and severe symptoms.

Symptoms and Course.

Calculi within the liver itself are even more likely to remain latent than when they quietly occupy the gall-bladder, but their symptoms are so extremely obscure that a diagnosis can scarcely be based upon them. Ill defined paroxysmal pains, not radiating, but confined to the right hypochondriac region, absence of jaundice, and hepatic enlargements, with, perhaps, slight digestive derangements, constitute their whole number. When an intra-hepatic calculus in its downward course becomes lodged in the *hepatic duct* there is fixed pain, persistent jaundice, with whitish evacuations, and the liver becomes speedily enlarged, but *the gall-bladder* is not distended, and this is a symptom of diagnostic importance in differentiating between obstruction of the choledoch duct and of the hepatic duct.

It has already been mentioned that calculi may remain for a long time in the gall-bladder without giving rise to irritation, but in certain cases their presence induces *chole-cystitis*, sometimes so slight and superficial as to be unattended by any symptoms, while at other times involving the whole thickness of the wall of the gall-bladder and signalized by acute symptoms of great severity.

There are then severe pains in the region of the gall-bladder, constant, but with paroxysmal exacerbations, during which they radiate to the epigastrium, loins, and right shoulder, and also fever.

The neck of the gall-bladder is of necessity implicated in the inflammatory process, and becomes obstructed; hence, to the symptoms above related is added distension of the gall-bladder, which gives rise to a pyriform tumor in this region. But there is no *jaundice*, which

is a point of importance as establishing the diagnosis between this condition and obstruction of the choledoch duct.

Chole-cystitis ordinarily terminates in recovery, but may result in perforation and peritonitis, as already mentioned, with the alarming and grave symptoms that accompany that event. An interesting case of chole-cystitis from gallstones is reported by M. Paulet in Allg. Wiener Med. Zeitung, 1875, as follows: A woman aged 42, mother of eight children, began in November, 1874, to feel a severe pain in the right side. On examination there was found a somewhat diffuse tumor about the size of a child's head, which extended from the umbilicus to the anterior superior spinous process of the ileum. As the case was attended by fever it was diagnosticated as one of suppurative ovaritis. In December it was determined to open the tumor with Vienna paste. In three days the skin was destroyed, and in seven the aponeurosis. An exploratory incision was now made, from which a little fluid escaped, but the needle came in contact with numerous hard bodies, which on removal proved to be gallstones. Forty of these were then taken out and a large one found almost encapsulated. It was broken, divided, and extracted without much difficulty, and some bile was also discharged. This biliary fistula soon closed, and in March, 1875, the patient had entirely recovered.

It is difficult to understand why in some persons gallstones, even in large numbers, should remain in the gall-bladder without indicating their presence by any symptoms, and why in other cases they should be so often disturbed from their resting-place and urged along the various passages until finally ejected from the system. Speculation on this point is vain.

There seems to be some connection between the inception of an attack of biliary colic and the period of greatest functional activity of the small intestine and neighboring parts consequent upon a full meal. The paroxysm ordinarily begins two or three hours after a meal, and patients are prone to believe that food has disagreed.

When active duodenal contraction on the arrival of the chyme stimulates the gall-bladder to pour forth its contents the bile thus set in motion engages the calculus in the neck of the gall-bladder. When once entered into the cystic duct muscular contractions, aided by the *vis a tergo* of the bile, propel the calculus until it has cleared the ductus

choledochus and drops into the bowel. It has already been remarked that biliary sand and concretions of larger size may pass without unpleasant symptoms, and even without the knowledge of the patient, but such is not the general rule.

I have noted the symptoms of at least 150 attacks of gallstone colic, and though they were subject to great variation as to severity and duration they were also characterized by great uniformity, so far as their number and character were concerned.

(*a*) The earliest symptom is usually either shivering or a sense of discomfort and distress in the epigastrium. This is soon followed by (*b*) nausea, vomiting, and (*c*) pain.

THE NAUSEA recurs in paroxysms, though it may be unremitting. The matters vomited consist at first of more or less completely digested food, but, continuing after the stomach has been completely emptied, the ejecta consisting of bilious, green-looking liquid. When the calculus has reached the choledoch duct the vomiting of this greenish liquid ceases, though the nausea and retching may not have stopped.

Bilious vomiting, as suggested by Trousseau, indicates that the common duct is free, and that the calculus is either at the neck of the bladder or in the cystic duct.

THE PAIN is, in most cases, at the commencement of the paroxysm referred to the pit of the stomach, and *not to the liver*. Subsequently it may radiate to the navel or the right shoulder, and become located more distinctly about the lower edge of the liver. The pain varies in character. It is described by patients as burning, cutting, tearing, or boring, or as a sense of painful constriction. It may be light, but is more frequently severe, and in a well-marked paroxysm it is excruciating, with remissions and violent exacerbations, which are said sometimes to occur in a regular rhythm.*

Among all painful diseases I have observed there is none which entails more intense suffering than this, and women have repeatedly told me that they have endured far greater agony in passing a gallstone than in giving birth to a child.

Some of my patients would in vain seek relief by frequent change of posture; others would remain perfectly quiet on their back, finding that every motion aggravated their sufferings.

* Jaccoud loc. cit.

Sudden and abrupt cessation of the pain, according to my observation, most frequently indicates that the calculus has tumbled back into the gall-bladder after having engaged in the neck. Ordinarily, and especially when the calculus is large and angular, the mucous membrane of the ducts has been bruised and lacerated during its downward passage, and though there is a sudden abatement of the pain when the stone drops into the bowel, yet perfect relief is not attained for some time, and tenderness and soreness continue perhaps for several days. The abdomen is often retracted, and its muscles may sometimes be seen to contract spasmodically.

Jaccoud suggests that the abdominal muscles keep rhythm with the contractions of the gall-bladder, endeavoring to expel the calculus. The face is often pale, and the forehead covered with perspiration, the pupils are dilated, the pulse is often slow, but in many cases, and especially when the paroxysm is severe and has been protracted, the pulse becomes small, quick, and irregular.

The urine is often voided frequently and in large quantities, and is very pale and of low specific gravity during the paroxysm, but after it is over the urine becomes scanty, high-colored, contains bile and urates, and is of high specific gravity.

In ordinary hepatic colic there is *no fever*. I have, however, observed two cases in which well-marked febrile excitement set in and lasted throughout the paroxysm, then suddenly passed away with the cause. Frerichs reports similar cases in which the temperature rose as high as 104°, but the duration of the fever and paroxysm was exactly the same.

When the paroxysm has lasted for some time distension of the gall-bladder may become quite perceptible. In my cases this was so rare that I find it recorded only in a case of protracted colic, lasting forty-eight hours, and in another case where the calculus became impacted in the common chole-duct, and which terminated in death.

Dr. Hayden* also remarks that the round, smooth, yielding tumor mentioned by authors as formed by the distended gall-bladder is very rarely met with. In some when tumefaction of the gall-bladder was present there was also enlargement of the liver; both pass away together as the obstruction is relieved, unless extensive inflammatory action has been excited.

*Dublin Journal of Medical Science, April, 1876.

JAUNDICE.

In twenty out of my thirty-five cases this symptom was never present, and among the fifteen cases in which it was observed it was not an invariable concomitant of the colic fits, these patients having many paroxysms in connection with which this symptom was absent. From this it appears that jaundice is not an invariable or necessary part of biliary colic. A calculus descending the cystic duct will not induce it, and even when the common choledoch duct is obstructed, jaundice sets in only if the impaction be protracted and the obstruction is complete; if the latter, the jaundice is permanent. Such was the case with one of my patients, who died profoundly jaundiced and comatose.

Most frequently the jaundice develops during the twenty-four hours immediately after the cessation of a paroxysm, and is then most likely due to tumefaction of the ducts from engorgement caused by the bruising and laceration of the mucous membrane during the descent of the stone.

Dr. Goodeve* has remarked that in some instances there are convulsive movements of the abdomen. This I did not observe in any of my cases, nor general convulsions or delirium, which are said sometimes to occur in this connection.

THE DURATION of an attack of biliary colic varies greatly from a few hours to many days. I have had patients in whom it lasted forty-eight hours, and Trousseau records one case in which it lasted six months. It appears to be determined by the size and number of calculi passing.

The subsidence of the pain which marks the close of the seizure is often sudden, but in my experience generally not complete. The patient complains of soreness and weakness; there is tenderness over the liver and gall-bladder, and these in proportion to the *duration* and *severity* of the attacks. When the attack has been protracted, and when one follows another in rapid succession, I have often noticed steady and marked loss in weight.

One attack of gallstone colic is, as a rule, the precursor of others. The frequency of their occurrence appears to depend, among other causes, upon the number of gallstones contained in the gall-bladder,

* Reynold's System of Medicine, vol. iii, p. 315.

and upon the rapidity with which new ones are formed. In some cases weeks, months, and even years may mark the intervals between the attacks. In other cases these recur within a few days, or even a few hours.

In the latter class there are multiple calculi which migrate in rapid succession, or a single calculus repeatedly engages in the funnel-shaped orifice of the cystic duct, and then falls back into the gall-bladder; or it traverses the narrow cystic duct, and on entering the com. choledoch duct, which is of larger caliber, the pain greatly abates, and finally it engages the narrow orifice of the latter, when the pain again returns with increased violence, until the calculus at last clears it and drops into the bowel, and the fit is at an end. I have on several occasions been led to the opinion that a calculus having engaged in the orifice of the cystic duct had receded and fallen back into the gall-bladder.

The following points have guided me in these cases: (*a*) The short duration of the seizure; (*b*) the sudden cessation of pain; (*c*) entire absence of jaundice during and after the paroxysm; (*d*) failure to find a calculus in the evacuations though careful search was continued for two or three days after the fit had ceased.

But in many cases no such minute diagnosis is possible. Indeed the diagnosis of gallstone colic is often obscure, and the true nature of the disease is not seldom overlooked. An illustrative case occurred not long ago in a western city, the particulars of which were communicated to me by a medical friend, who performed the post mortem examination. The gall-bladder was filled with biliary calculi; the duct com. choledoch was obstructed by a large concretion which had become impacted at the orifice of the duct, causing not only inflammation, but obstruction of the duodenum.

Gallstone colic may be distinguished from ordinary colic by the latter never being associated with jaundice; by the relief afforded by emetics and purgatives; by the pain being located further down, and by the absence of tenderness and soreness over the liver and gall-bladder.

Renal colic is accompanied with irritation of the urinary organs, the course or microscopic appearance of blood in the urine, the course of the pain, retraction of the testicle, passage of gravel per urethram, etc.

In *hepatic neuralgia* the pain is far less severe. There is apt to be neuralgia in other parts with which it alternates; there is absence of jaundice, no enlargement of the gall-bladder and liver, and no gall-stones are passed. Hepatic neuralgia, besides, is exceedingly rare, and occurs mostly in hysterical women and in connection with neuralgia of other parts.

Cancer of the pylorus has been mistaken for hepatic colic. I have differentiated them by noting that in the former the pain is more constant, though less severe; there is no jaundice, the liver and gall-bladder are not enlarged, and the tumor, when pressed, is seated higher in the abdomen and nearer the median line than the gall-bladder.

In carcinoma of the liver I have seen jaundice and enlargement of the gall-bladder from pressure of a cancerous nodule on the ducts, but the steadiness of the pain, the nodulated enlargement of the liver, the cachexia, and absence of the paroxysmal elements render the diagnosis easy.

Aneurism of the abdominal aörta and hepatic artery have been associated with paroxysms of excruciating pain, and jaundice, and even enlargement of the gall-bladder, and in some instances these lesions have been mistaken for gallstone colic; but aneurism in this locality is usually recognized without difficulty by attention to its characteristic signs.

The only *positive* sign of gallstone colic is the finding of the calculus, or fragments of it, or biliary sand in the evacüations. Careful search for them should, therefore, always be made when their presence is suspected. Every evacuation for several days after the seizure should be kept for investigation.

I generally prescribe a dose of some purgative the day after an attack of biliary colic, most often castor oil, which is indicated on account of the constipation that then commonly exists; and it has besides the effect of hastening the ejection of any calculi that may have found their way into the bowel. The method of search is a matter of some importance. A double thickness of fine mosquito netting is tied over the top of a slop-bucket, the fæces softened and diluted by the addition of warm water should then be poured upon the netting. All solids, such as pieces of bone, undigested vegetable-matter, or *gallstones* are detained, while all the soluble portions filter through. When sought

for in this manner even small calculi can not escape detection. It is rather tedious and unpleasant work, but it should never be neglected, and rarely entrusted to others. In one case my diagnosis was hotly contested, and its correctness admitted only when, after two days' search, a rather large calculus was found.

If the calculus is large, round, or oval, with uneven surface and single it is probable that no others remain behind. If, on the contrary, it or they be facet-shaped and polished, the gall-bladder will probably contain more that have not yet passed. The latter is the most common, and among the numerous biliary calculi that I have found only *one* had the appearance of being solitary.

The Complications and Sequelæ

Are sometimes of serious character, and require a somewhat more extended mention than that already incidentally made. In my own cases unfavorable developments were very rare, and my knowledge of them is derived in part from dead-house experience in the hospitals to which I have been attached, and in part from acquaintance with writers on the subject.

The calculi, whether in the liver, gall-bladder, or ducts, may give rise to inflammation, suppuration, and the establishment of internal or external fistula. The former are beyond our reach, but the latter have repeatedly terminated in perfect recovery, as shown by cases quoted in these pages.

Rupture of the ducts or of the gall-bladder and general and fatal peritonitis happen occasionally. The literature of chole-lithiasis furnishes a number of instances, but it must be of rare occurrence.

A calculus may become permanently impacted in the ductus choledochus, or this duct may become obliterated from inflammation excited by the passage of a gallstone. Under such circumstances there is enlargement of the gall-bladder, tumefaction of the liver, with enormous dilatation of the biliary ducts, which may form fluctuating tumors like abscesses. There is persistent jaundice, but sometimes the fæces regain their normal color, and the jaundice abates, because, under increasing pressure from behind, the bile filters through between the wall of the duct and the impacted concretion.

Gangrene of the duct, followed by sudden death, has occurred.*

* Bretonneau.

Even when the calculus has passed into the intestine all danger is not over. If large it may cause fatal obstruction of the bowel. Such cases have been related by Murchison (Diseases of Liver); by Cohnheim (Virchow's Archives, 1866); by Jeaffreson (British Medical Journal, May 30, 1868).

In other cases the calculus has been extracted from the rectum during life. Such a one was reported by Dr. Mitchell in the American Journal of Medical Science, 1866.

If the calculi be small they may become arrested in the vermiform appendix and cause perforation and fatal peritonitis.*

Dr. Dorkin relates a death from pressure of gallstones upon the vena portæ. (Med. Times and Gazette, 1868.)

A tendency to syncope is occasionally observed during the paroxysm, and proved fatal in one case reported by Portal in 1813. Another patient, reported in the American Journal of Medical Science, 1866, by Dr. Buckler, of Baltimore, appears to have died from this cause; also a third, in which death occurred in sixteen hours. (Leigh, Medical Times and Gazette, 1867.)

One of the rarest complications of chole-lithiasis is reported by Trousseau,† and consisted in reflex paraplegia, with general hyperæsthesia of the skin, from which, however, the patient finally recovered.

Prognosis.

In the majority of cases this is favorable, but the possible occurrence of such grave complications as those just enumerated must not be overlooked. Twenty-two out of thirty-five cases have passed from under my observation, but previously appeared to be permanently relieved; eleven still remain under my observation, and in all of these years have elapsed since the last seizure. Two died, as already stated. The length of time required to effect a cure is impossible to foretell. It depends in great measure upon the intelligent and hearty co-operation of the patient. The disease runs no definite course, but may extend over several years.

Treatment.

The therapeutic indications are two-fold, viz.: (1) To relieve the patient during the attack, and (2) to prevent its recurrence.

*Trousseau Clin. Med. †Clin. Med.

To accomplish these objects is not always easy, and, as in almost every exigency, there is ample scope for the exercise of sound judgment and nice discrimination in the selection of means and methods appropriate to the particular case in hand.

The agent that in my hands has been most uniformly efficacious for the relief of pain and prevention of shock to the nervous system is morphia. I have also thought that it tends to shorten the paroxysm, as well as to lessen its severity. It should be administered hypodermically. I usually give from one fourth to half a grain, and I repeat this every hour or two until the pain is relieved. The earlier in the seizure it is resorted to the more certain it is to afford speedy relief.

In a recent article, on this subject Dr. Hayden, of Dublin,* confirms, by his results, the opinion I have expressed about this remedy, and declares that hypodermic injections of morphine are more efficacious than the inhalations of chloroform.

Opiates should never be given by the mouth or in solid form for the relief of gallstone colic.

In some cases I have treated, the pains were so atrocious that morphia was inadequate to allay them, and the administration of chloroform is then the best alternative. It may be given simply for the relief of pain and to induce such relaxation of the tissues as to thereby facilitate the passage of the gallstone, and then the best method of using it is by inhalation. But the paroxysm may be so protracted as to make the continued inhalation of chloroform not only inconvenient, but absolutely unsafe, and I have more than once been compelled to discontinue its use on such account.

Chloroform is also given internally with the view of causing the rapid solution of the gallstones *in situ*. Its administration in this way is based on the fact that chloroform is a powerful solvent of cholesterin calculi out of the body, and upon the supposition that it is not changed in the blood and passes from this fluid into the gall-bladder, where its solvent action is exerted upon the contained calculi.

One is inclined to reject at once this theory of its action as highly improbable. For it is indeed difficult to believe that a quantity of chloroform sufficient to dissolve these calculi *in situ* can be safely administered to a patient, even if the passage of the volatile liquid into the gall-bladder were at all proved.

*Dublin Journal of Medical Science, April, 1876.

Dr. Buckler,* of Baltimore, has adhered to this treatment for over twenty years, and declares that he has invariably found it trustworthy and successful. He gave *a teaspoonful of chloroform internally every hour while the pain lasted and a teaspoonful* after each meal for five days longer, and saw a large calculus in the gall-bladder melt away under its use, so that at the end of this period the tumor had disappeared.

Dr. John Barclay,† Physician to the Infirmary, Leicester, England, gives the same *modus operandi* and entertains the same high opinion of the value of chloroform administered internally in this disease, and declares that he has found it to give invariable and permanent relief in many instances. But his good results were obtained with much smaller doses than those given and advised by Dr. Buckler; two or three drops three or four times a day being all he gave. In my experience these large and frequent doses of chloroform produced alarming symptoms, and I have never been able to give them with the freedom recommended by Dr. Buckler. The smaller doses I have found utterly without effect.

The general, prolonged hot bath I have sometimes found of signal benefit in producing relaxation and relieving pain, but it is often inconvenient, and perhaps as often impossible of access. Surrounding the patient's waist with a folded sheet wrung out of hot water will sometimes give relief, and in several instances I found the application of leeches speedily effectual when every thing else had failed.

Jaccoud states that general blood-letting has in several cases been followed by sudden cessation of spasm of the ducts and subsidence of the attack.

Emetics are often resorted to by the patient himself on account of the nausea and retching, which induce him to believe that if he could only vomit freely the pain, as well as nausea, would cease. But emetics ought to be rigorously proscribed, for if they do favor the progress of the gallstone by provoking more powerful contractions, they are also likely to produce rupture of the ducts.

When the paroxysm is over I believe the administration of a purgative, such as castor oil, is advisable and hastens the ejection of the gallstone.

* Amer. Jour. Med. Sciences, July, 1867. † British Med. Jour., 1870.

In order to prevent the recurrence of the paroxysms at least two conditions must be fulfilled: (*a*) Any gallstones remaining in the gall-bladder must be dissolved; (*b*) Formation of new concretions must be prevented.

The well-known solvent powers of ethers upon cholesterin was supposed to be active within as well as out of the gall-bladder. Upon this principle the treatment for gallstones by means of Durande's remedy was based. Trousseau, while rejecting the theory, accepted the remedy, which is composed of ether. sulph. ʒ iij, ol. terebinth. ʒ ij. Dose ʒ ss in the morning, and gradually increased until about a pound of the mixture has been taken. At present this medicine is little used on account of its disagreeable taste, which soon becomes loathsome to the patient. I have never prescribed it.

Success in preventing future paroxysms must depend upon our ability to arrest the formation of new concretions and to facilitate the expulsion of those already formed.

So long as gallstones remain in the gall-bladder the liability to future paroxysms of colic continues, and this must be clearly explained to the patients.

When our efforts are adequately seconded by the patient a cure can generally be effected so that no new gallstones will be formed.

The patient's food should be plain but nourishing. Highly seasoned viands, malt liquors, fats, and sweets, and rich soups must be interdicted. He should eat moderately, at short intervals, not less than three meals a day. He should take active exercise, by walking; all other exercise is inferior to this. So long as any calculi remain in the gall-bladder he should not indulge in violent exertions, such as running, wrestling, etc. His daily life must be regulated with the view of establishing rapid and perfect tissue change, perfect combustion and complete and speedy elimination.

Dr. Buckler, in the paper already mentioned, suggests that any remedy capable of preventing the formation of gallstones must be a highly oxygenated compound, and further states that the difficulty of dissolving cholesterin by any other substance than ether and chloroform grows out of the fact that cholesterin contains a very small amount of oxygen, from 1½ to 2 per cent, which is less than that of almost any other substance.

He proposed succinic acid and peroxide of iron on account of the large amount of oxygen contained in both of them, and had them made into a hydrated succinate of peroxide of iron. It should be taken for six months continuously at least, according to the following formula:

℞ Hydrated succinate of peroxide of iron..... ℥jss;
Distilled water..... ℥vjss.
S. Teaspoonful after each meal.

I have used this salt according to this formula, as prepared by my friend, Prof. E. Scheffer, of the College of Pharmacy in this city, and in almost every case with complete success.

It has also been my practice to put the patients upon a course of Carlsbad water. Vichy or Marienbad waters have also been used with benefit. These waters are imported by Mr. C. L. Diehl, of this city. Artificial mineral waters of good quality are made by Wm. Springer & Co., and I have often prescribed them with excellent results. It is difficult to say how they act. At Carlsbad patients who drink the waters often begin without pain to pass gallstones, whose existence they had never suspected.

As insufficient alkalinity of the bile and the prolonged stay in the gall-bladder of that fluid favor the formation of gallstones it is possible that these alkaline waters become remedial by provoking a more active and abundant percolation of highly attenuated and hyper-alkaline bile, which will prevent the deposition of bile pigment and the formation of calculi.

The action of these waters upon catarrhal states of the mucous membranes may also have a share in their good effects in this disease which so frequently depends upon catarrh of the gall-bladder. Whatever their *modus operandi* may be, their curative value is undisputed.

In my earlier cases I relied upon a remedy that was employed with much advantage by the late distinguished Dr. Lewis Rogers, of this city:

℞ Ammoniæ muriatis..... ℥ss;
Ext. taraxaci..... ℥ss;
Aquæ..... ℥vj.
M. Dessertspoonful *ter in die.*

About four or five years ago Schiff, of Germany, suggested that gallstones are formed of cholesterin, not because this substance is

formed in too great abundance, but because the bile is deficient in principles which maintain it in solution; these are soda and potash salts of cholic and choleic acid. Schiff therefore recommended that eight grains of choleate of soda be given twice daily, and increased unto *saturation*, as indicated by irregularity of the pulse, which becomes slow during repose and accelerated by the least effort. The dose may then be diminished, but not entirely suspended. It should be kept up at least a week to produce amelioration of leading symptoms.

Dr. Dabney, of Virginia, has recently published some cases fully bearing out the previous dicta of Schiff. While on my eastern tour last summer I procured some capsules of the cholate of soda for a patient, but it so soon gave rise to gastric disturbance that we were glad to return to the use of succinate of the peroxide iron with Carlsbad water.

REPORT ON VITAL STATISTICS.

BY D. N. PORTER, M. D., OF EMINENCE, KY., CHAIRMAN.

Your committee ask leave to make a suggestive report.

A report on this subject should embrace the total population, nationality, sex, and condition. The number of marriages, age, condition, nationality. The number of births in a year, the sex being stated. The number of deaths, age, sex, condition, nationality, and cause of death.

Under the present operation of our registration laws every thing is too vague and uncertain for one to get at the facts with any assurance of certainty.

If every minister in the state, and other persons who celebrate marriages, would report under the laws of the commonwealth, and every physician, surgeon, and midwife would do so correctly to county officers, and these with fidelity would report to the auditor at the capital, or if we had a competent and active state registrar who would gather all the facts requisite to make up a report on this subject, and he or the auditor would keep a just and true record, then the facts could be obtained.

It is therefore suggested that a competent committee residing at or near the city of Frankfort, who can have free access to the auditor's books with his assistance or the assistance of a competent clerk, or if a registrar should be appointed, access to his works with his or the assistance of a clerk, then a report of vital interest can be made up.

It is further suggested that the committee be assured by resolution of the Society that the expenses necessarily accruing in the getting up of such a report shall be defrayed.

All of which is respectfully submitted, and your committee asks to be discharged from further consideration of the subject.

REPORT ON EPIDEMICS.

BY L. S. M'MURTRY, OF DANVILLE, KY.

As chairman of the committee to which the subject of epidemics in Kentucky was referred at the last meeting of this Society, the following report is respectfully submitted:

The year which has elapsed since the last meeting of this Society has been one of extraordinary health throughout the state. The warm season was ushered in with unusually high temperature which was maintained with oppressive regularity. The visitors to the national exhibition kept up during six months a continuous current of direct communication to and from the great cities of the eastern shore of our continent, furnishing most unusual opportunities for the importation and dissemination of epidemic and contagious diseases.

An accomplished member of this Society, Dr. Ely McClellan, U. S. A., who has enjoyed extraordinary facilities for the cultivation of sanitary science, and whose admirable labors in connection with the last visitation of epidemic cholera in our country are familiar to all present, remarked, in the course of a conversation with your reporter early in the year, that there was every reason to anticipate the importation of the worst of epidemic diseases by means of the numerous vessels from foreign ports, which would load and unload upon our shores during the progress of the Centennial Exhibition.

The facts and circumstances in support of such apprehension were numerous and strong; and, if we mistake not, the attention of sanitarians throughout the country was directed to the centennial city, expecting at any day to see it transformed from a scene of pleasure into a focus of pestilential infection. The sequel relieved these apprehensions, and with a continuous current of communication from our state to the seaports of the East during half the past year, we were without any such epidemic as was anticipated.

While this deliverance from the greatest danger which menaced the public health of our state and nation during the past year is a matter of grateful satisfaction to the entire public, it is a matter of special felicitation to our profession, for from the ranks of the regular medical profession were furnished the members of the commission which undertook the sanitary work of the exhibition, and so vigilantly and successfully performed its duty.

The warm season of the past year furnished an unusual approach to immunity throughout many portions of the state from malarial diseases. In this respect it was in pleasing contrast to the previous season, which, in consequence of its heavy rainfall and rank vegetation, furnished unusual facilities for the development of that subtle poison which manifests its presence with varying degrees of violence and universality during every year. While malarial fevers more properly belong to the class of endemic diseases, the irregular manner in which they prevail and the relation which they bear to other diseases, necessitate a notice of them in any account of the epidemic diseases of our latitude. So far as we have been able to learn, these fevers have been rather less frequent than usual during the past year; mild in type, and quite amenable to treatment. While the generally accepted method of treatment, the administration of quinine and arsenious acid with eliminative measures, has been most frequently observed, the sulphate of cinchonidia has been used by many practitioners with most satisfactory results. The last volume of transactions of this Society containes a valuable series of observations upon the effect of this remedy, in which its claims to favor are enumerated. So far as your reporter has been able to learn from his brethren who have used the article it has increased in favor and confidence during the past year, but has not yet attained the frequent use to which its merits and cheapness, as compared with quinine, entitle it.

It is with most profound gratitude that your committee reports that dysentery and diphtheria have, at no time during the past year, prevailed within our borders as an epidemic.

Notwithstanding that the summer months of the past year were characterized by a higher range of temperature than the same months of the preceding year, the prevalence of that great infantile scourge, cholera infantum, was not so general or fatal. The factors which go

to determine the exact character and severity of epidemic diseases through various seasons, are so diverse and obscure as to make it exceedingly difficult to enumerate them in detail; yet it would be difficult to select an instance in which such known conditions as high temperature, impure air, and improper food will more certainly produce a given result than is exhibited in the etiology of this disease. The treatment now universally adopted by skillful practitioners is found in the application of the familiar maxium, "*the cause being removed the effect ceases.*" Excursions to the country, careful attention to nutrition, to the function of the skin, furnish results than which none of the triumphs of modern therapeutics are more gratifying. The example of the St. John's Guild Floating Hospital, which had such marked influence upon the infant mortality of New York during the past season, commends itself to the health-boards of all our large cities, and should be adopted by all who are intrusted with the health of large communities. For the prevention and cure of infantile cholera, which destroys during every summer a large number among the poorer classes of all large cities, that distingushed American scholar and sanitarian, Dr. J. M. Toner, of Washington, has suggested the establishing of camps in the country during the hot weeks, where the purest air and wholesome food may be furnished at very small cost. Such an arrangement would certainly furnish means of safety to a large proportion of our city population, since it is by no means an uncommon observation in city practice to see children dying during the hot season simply for the want of pure air and proper food. Most assuredly can it be claimed that these are the means for preventing and controlling epidemics of cholera infantum.

In the counties of Woodford, Scott, and Franklin the diseases erysipelas and puerperal fever have prevailed as epidemics during the past year. The coincident prevalence of these diseases in the same region, and many significant cases pointing to a relationship between the poisons at work in their production, give additional confirmation to now well-established belief that the one holds a causative relation to the other. Dr. M. E. Poynter, of Midway, to whom your committee is indebted for valuable information on the prevailing diseases of these counties, says: "I have never before had so many cases of intractable erysipelas, and have never seen so much puer-

peral fever. It was remarked by every doctor, and even the laity noticed the fact that the two diseases went hand in hand." Dr. P. alludes to the following case illustrating this connection between the two diseases: two children of Mr. B., of Scott County, were attacked with erysipelas in severe form. During the illness of one of the children, who ultimately died, the mother suffered a miscarriage; she left her room rather early, and nursed her sick child, frequently lying on the bed with the child. She was seized with puerperal peritonitis and died. Numerous other instances could be detailed here showing the direct transmission of the poison resulting both in puerperal peritonitis and erysipelas; and the rise, progress, and extent of the epidemic gave indubitable evidence of relation and mutual dependence of the diseases. This subject of the nature and relation of puerperal fever, erysipelas, and scarlatina is one of great scientific interest as well as of vital importance; and an investigation of the evidence and observed facts connected therewith would amply repay the labor, had your committee time and space for its thorough consideration. The limits of this report, however, only extend to the observation of facts during the past year.

At the last meeting of this Society it was very justly deemed necessary by my accomplished predecessor upon this committee to call your attention to the prevalence of *scarlatina* in some portions of the state. Doubtless almost every member present has encountered this scourge of childhood in its most malignant forms, and to some it has been the bearer of personal sorrow. This is a disease which, in large communities, receives a line in the mortuary report of almost every month of the year, but during the past year it has occupied such a prominent place among destructive diseases throughout the state as to entitle it to full consideration in treating of epidemic diseases.

Scarlatina has not only spread itself over our entire state, excepting a few isolated localities, but has prevailed very generally throughout the western and northern portions of the United States. The origin, progress, and peculiarities of the epidemic have been eminently characteristic of the disease. Just as the poison seems in some instances to exercise an elective affinity for individuals, and to pursue a mild or rapidly destructive course according to individual habit of body, so it has behaved as to various communities throughout the

commonwealth. In several instances occuring under the observation of your reporter the disease pervaded an entire family in its mildest form, scarcely confining its subjects to bed, and advancing promptly to perfect recovery without medication, while the contagion derived from the same source would in other individuals exhibit its most malignant characteristics, often overwhelming the system early in its course with the virulence of the poison. To illustrate this feature of epidemic scarlatina as applied to communities, we need only allude to its prevalence during the past year at Danville and Stanford in this state. In the city of Danville and Boyle County, with the exception of a few instances, the disease has prevailed with mild manifestations, and though cases of the disease were numerous the number of deaths did not exceed a half score, while the neighboring town of Stanford experienced its most malignant manifestations. The following admirable account of this epidemic, which prevailed with such severity at Stanford and throughout the country surrounding the town, has been furnished your committee by Dr. S. P. Craig, of that place. Dr. Craig after giving the particulars of location of the town of Stanford, its railroad connections, etc., says: "Scarlatina of a severe type made its appearance here about January 1, 1876. The disease had not prevailed here, so far as I am able to ascertain, and certainly not as an epidemic, for a number of years. The first recognized case occurred in the family of a mechanic living near the railroad crossing. According to the statement of the parents, the children of the family, four in number, had been strictly confined at home for many days, with the exception of the eldest, who attended a female school. About this time it is stated that several cases of "sore-throat" were known to exist at the school of which this girl was a pupil. The disease soon began to spread in various directions through the community, and a fact worthy of note is that the first cases occurred in pupils of the school or families which were represented in the school. The disease extending itself through the community, reached the other county towns and prevailed generally throughout the county of Lincoln. It is estimated that there have been fully five hundred cases in the county, of which eighteen per cent have proved fatal. The few cases which have occasionally occurred since the subsidence of the epidemic up to the present time have exhibited the same degree of virulence. Anginose

symptoms, beginning early in the course of the disease, appeared in almost every instance, and these symptoms have not subsided with the appearance of the eruption, but have increased in severity.

"Ulceration of the tonsils and nasal tracts, otorrhœa, ophthalmia, and inflammation of the glands of the throat were of very frequent occurrence. The temperature was frequently observed at 104° F., and in other instances ranging on to 107½° F. In many cases death occurred early in the course of the disease before the eruption appeared, the system being overwhelmed with the very intensity of the poison. So far as the knowledge of the writer extends, in every case in which convulsions occurred, either at the inception or during the progress of the disease, death resulted. Nephritis was of frequent occurrence, and general dropsy was observed in some cases. Cerebro-spinal troubles came on in the latter stage of some fatal cases.

"The treatment in this epidemic has been principally symptomatic. By far the most important indication of treatment in most cases of scarlatina is the reduction of the excessively high temperature. This is necessary not only for the relief of the patient, but to protect the subject of the disease from those serious dangers which a high temperature of prolonged duration is known to bring about. For this purpose the remedy most effective in the hands of the writer was *water*. A bath in which the temperature of the water is graduated according to the intensity of the fever will, in judicious hands, secure better results in the treatment of severe cases of scarlatina than any other known means. Another important indication in the treatment of the disease is to diminish the frequency and improve the strength of the pulse. This is best attained by the use of digitalis *freely* administered, which is a valuable adjunct to the system of hydrotherapy alluded to above.

"Carbonate of ammonia, so highly extolled by some authors as a valuable remedy in scarlatina, has proved useless in the hands of the writer.

"During the prevalence of this epidemic the writer has had opportunities to test thoroughly the reputed prophylactic powers of *belladonna*. The conclusions arrived at are opposed to the possession of any such influence by this remedy."

These observations of Dr. Craig, written after a year of almost

uninterrupted familiarity with the malignant type of epidemic scarlatina, are worthy of most careful consideration.

We could not better portray the salient features of the disease as observed generally throughout the state during the past year than to quote the language of a valuable letter received by your committee from Dr. L. P. Yandell, jr., describing the epidemic as observed by him in Louisville. Alluding to scarlatina, he says: "It has been, according to my observation, more than usually severe; has attacked more adults, has killed more children approaching puberty, and has prevailed more generally among the wealthier classes than at any previous time in my experience. It has presented its usual apparently contradictory features as to contagion. Many cases have been indubitably due to contagion, while many can not be distinctly traced to this source. In many instances the disease has been acquired from a single day's intercourse with an infected playmate; and instances are not rare where children of different ages being equally exposed in the same household, some were affected with the disease and others escaped it entirely."

In regard to treatment, Dr. Yandell further states: "Nothing new has been developed, and like signs in dry weather, all methods have sometimes failed. Tincture of the muriate of iron and sulphate of quinine I incline to regard as the most valuable medicines in this disease. Local treatment to the throat seems to me to be more than useless. Anointing the skin, I think, diminishes the fever and contributes to comfort. Tepid and cool baths are conducive to comfort and are valuable therapeutic measures in scarlatina; but the cold bath is painful, and I am now convinced that reduction of the temperature by this method does not enhance the chances of recovery. Alcohol, the arterial sedatives, and other remedies, are frequently of value when employed to meet similar indications in other diseases. In my judgment antizymotics and disinfectants are without efficacy in the treatment of the disease."

During the prevalence of the epidemic the newspapers teemed with discussions in regard to the preventive and curative influence of belladonna, sulpho-carbolate of soda, and the efficacy of the cold bath and pack in treating the disease. Many of these articles were highly sensational, and in many instances were the cause of unnecessary and

hazardous use of medicines in the hands of the laity. Of the various articles used in this manner none have proved prophylactics, and the only preventive measures worthy of confidence for limiting the prevalence of the disease are isolation of the patient, the observance of thorough ventilation and disinfection, and the careful destruction of all discharges from the patient, together with clothing and bedding.

Concerning the treatment of this disease nothing of great value has been developed during the past year. So far as your committee has been able to learn the cold bath and wet pack have not been extensively used in this state, and opinion is somewhat divided as to the efficacy of the method; the weight of opinion being rather opposed to the use of baths for the rapid and sudden reduction of temperature, while tepid and cool baths are in very common use.

The application of sulphur, both by internal administration and application to the skin, as a specific remedy in scarlatina, which is now receiving attention in England, has not as yet received any trial from the profession of this country so far as your committee is aware. Salicylic acid as a remedy in scarlatina has given no evidence of value.

Your committee desires to express its obligations to the following gentlemen of the Society for valuable aid and encouragement in the course of preparation of this imperfect report of the condition of the health of our commonwealth during the past year as respects epidemic diseases: Drs. J. A. Larrabee, L. P. Yandell, jr., and Coleman Rogers, of Louisville; Dr. M. E. Poynter, Midway; Dr. W. P. Thackeray, Woodford County; Dr. B. M. Dudley, Lexington; Dr. R. F. Logan, Shelbyville; Dr. J. H. Letcher, Henderson; Dr. C. H. Todd, Owensboro.

STERILITY AND ITS TREATMENT.

BY W. H. WATHEN, M. D., OF LOUISVILLE, KY.

As there are several interesting papers to be presented at this meeting of our Association, I shall detain you but a few minutes, and respectfully ask your attention to some remarks on those forms of sterility that require surgical treatment. To those who have neglected the study of this subject it might not appear very practical; but when we reflect that about every eighth marriage is barren, we see the necessity of investigating every thing that can elucidate this important matter, especially since it is a fact that, clinically speaking, sterility does not, except in rare cases, denote the absolute impossibility of conception, but only the presence of a greater or less obstacle.

Let us pass by the theories explaining the physiology of conception, and assume that impregnation can only occur when the living spermatozoa of the male come in contact with the healthy ovule of the female, and that this must take place within the uterus or fallopian tubes or on the ovaries, and that where there is any thing to prevent this contact we invariably have sterility.

The causes that oppose the union of these two elements are generally some congenital or acquired abnormal condition of the female generative organs, and are seldom removed except by surgical interference. We shall confine our remarks to this part of the subject, as it is imperfectly understood by the general practitioner, who can devote but little time to its study.

Most physicians are so accustomed to treat sterility constitutionally that they are supposed to be quite familiar with what we would term the constitutional and general causes, such as sexual frigidity, syphilis, general debility, and anæmia, or the condition the opposite to that present in anæmia; that, namely, of over-feeding and luxurious habits,

corpulency; and are fully capable of managing such cases intelligently and scientifically.

The abnormal conditions of the female organs referred to consist of mechanical obstructions in any part of the passages from the vulva to the fimbriated extremities of the fallopian tubes, such as to interfere with the proper transit of the spermatic fluid or of the ovules. These obstructions may be considered in the following order:

(1) *Obstructions at the vulva or ostium vaginæ;*
(2) *Obstructions within the vagina;*
(3) *Obstructions at the os externum or within the cervical canal;*
(4) *Obstructions from malformation or displacement of the cervix;*
(5) *Obstructions from displacement of the uterus.*

It will be necessary to include under these headings those cases in which the vagina is incapable of retaining the semen, though, logically speaking, such a condition does not constitute an obstruction.

(1) *Obstructions at the Vulva or Ostium Vaginæ.*—When excessive development of the labia vulvæ or hypertrophic or cancerous enlargement of the clitoris is an obstacle to intercourse and a cause of sterility excision is indicated and may be safely performed. The hymen sometimes deviates from its normal crescent-shape, and partially or completely closes the entrance into the vagina, and prevents the introduction of the male organ. We usually have infertility with this deformity; but cases of impregnation are recorded where the semen was deposited only on the external parts of the female. By a physical examination we can readily detect the obstruction, and by crucial incisions can quickly and safely remove it.

Vaginismus always produces dyspareunia, and in most instances an inability for sexual intercourse, and thereby frequently entails sterility. When it is the result of disease of the uterus or its appendages, the treatment should be directed to the cause; but if simply a hyperæsthesia of the hymen or vulvar outlet, we shall have to resort to other means. Until recently such cases baffled the skill of our profession, but thanks to the genius of Sims, we can now insure these patients a perfect cure, and not only save them the mortification of living without issue, but enable them to perform the obligations of the marriage state. Having your patient etherized and on her back or left side, seize the

hymenial membrane (or its remains) with tenaculum forceps at its junction with the urethra, and with a pair of curved scissors cut it all away in one continuous piece. In a few days the cut surface is entirely healed and the operation for a radical cure may be performed. This consists in making a deep incision through the vaginal tissue on each side of the mesial line, beginning half an inch above the sphincter and extending through the raphé to the perineal integument. To complete the cure the patient must wear for a while a glass dilator. Glass is better than any other material, because it is easily kept clean, and its transparency enables us to see the cut surfaces and the vaginal walls without removing it. If there is much bleeding the dilator should be introduced at once, otherwise wait for twenty-four hours, when it may be tolerated from one to four hours morning and afternoon, until the parts are entirely healed and all sensitiveness removed.

Some authors oppose this bloody operation of Sims and claim that this rebellious trouble can be cured by less severe means. Scanzoni effects a cure by gradual dilatation; Simpson by dividing the nervus pudendus subcutaneously; Chorrier, Horwitz, Courtney, Sutigin, and Tilt by forcible dilatation under profound anæsthesia; and in America we have even introduced "*etherial cohabitation;*" that is, while the wife is under the influence of an anæsthetic the husband performs coitus with the view of inducing conception, and effecting a cure through parturition.

Partial or complete atresia vulvæ obstructs the entrance into the vagina and prevents conception. If the adhesions are so firm that the fingers or handle of the scalpel will not tear through them, we must use the knife and make an opening large enough to admit of connection.

Tumors of the vulva when so large as to interfere with or prevent sexual intercourse must be excised.

When with ruptured perineum we have sterility from an inability in the vagina to retain the semen, the defective part must be restored by the most improved method of operating for this class of cases. If metallic sutures are used and the operation properly performed it is safe to affirm that success is the rule, and with this fact known few women will be found willing to endure such a loathsome trouble for years or perhaps a lifetime.

(2) *Obstructions within the Vagina.*—Cystic tumors and fibroid or mucous polypus attached to the vaginal walls, fibrous tumors within the walls, and fatty tumors in the recto-vaginal septum call for the intervention of surgical treatment. The fibrous and fatty tumors may be removed by excision, the fibroid and mucous polypi by the ecraseur or scissors; the cystic, if pediculated, also by the ecraseur or scissors, but if sessile, it is better to dissect it from its attachments. When the cyst is only tapped and injected it will subsequently refill.

Atresia vaginæ forms an obstacle to the reception of the semen by causing intercourse to be difficult or impossible, and so leads to sterility. Whether the adhesion be incomplete or complete, the treatment is the same, viz: to restore the canal, if possible, and keep it open by the use of the glass dilator until the divided surfaces are covered with mucous membrane or until all tendency to contraction has disappeared.

Congenital absence of the vagina may be practically divided into two clases: 1. Absence of the vagina with signs of menstrual retention; 2. Absence of the vagina with no signs of menstrual retention. In the first class of cases operative measures are generally called for, while in the latter seldom or never; but if at all, only when, in a well-developed woman, we are satisfied that the uterus and ovaries are perfect and that menstrual molimina have been present.

In some instances where the organs appear normal the vagina invariably expels the seminal fluid as soon as the penis is withdrawn, and not a particle ever gets into the uterus. In a careful physical examination of these cases we shall generally find a very short vagina, which seems sufficient to explain this peculiarity. The vagina being very elastic is put upon the stretch by the male organ impinging against Douglas's cul-de-sac, and when withdrawn the retractile force ejects all the deposit. No operation will make the vagina longer, and all we can do is to instruct the husband to introduce the penis to a depth proportionate to the length of the canal.

Fistulous openings into the vagina may cause sterility by permitting the semen to pass out through their openings or by a secretion poisonous to the spermatozoa. They should be closed by denuding their edges and bringing them together by silver sutures.

(3) *Obstructions at the Os Externum or within the Cervical Canal.*—

It is safe to assert that obstruction at the os externum or of the cervical canal is the most frequent cause of sterility. It generally opposes the passage of the menstrual flow, and when its subjects enter upon married life other consequences are added which tend to prevent conception. These are congestion and inflammation of the uterus, ovarian irritation, menorrhagia, cervicitis, vaginitis, vaginismus, and dyspareunia. We do not intend to convey the idea that these consequences and sterilty are always constant, but we do believe that where we have a narrow os or canal the latter will commonly follow. The association of sterility with this peculiar formation of the os uteri appears to have been recognized from remote periods of medical history, and its revival by the late Dr. Macintosh and others was only a recovered legacy. Aëtius points out the dependence of sterility on a contracted os and describes the treatment of dilating by compressed sponge tents. Its revival met with but little encouragement on the Continent, but was at once accepted by Prof. Simpson, of Edinburgh, and Drs. Barnes and Oldham, of London, and is almost universally recognized in America. The obstruction is generally at the os externum; but if at the os internum, experience justifies us in the belief that it is commonly due to angulation from flexion of the body of the uterus upon the neck, and seldom to contraction. If we forcibly penetrate the occluded os externum with the sound, the point usually enters into a sufficiently capacious cervical cavity, and with proper manipulation passes through the os internum. Of course it will not be claimed that because the sound can be introduced semen may enter the uterus. We shall not explain the theories by means of which the semen passes from the vagina to the uterus, but shall assume that the possibility of a meeting between the spermatozoa and the ovule is prevented in exact proportion to the degree of obstruction existing in the canal or at its external orifice. The obstructions may be classified in the following order:

1. The os or cervical canal may be abnormally small or completely adherent. 2. The os or cervical canal may be large enough, but the hypertrophied and hardened lips press so firmly together that the semen can not enter the uterus. 3. Valvular closure of the os or cervical canal.

Cases included in the first and second classifications require similar treatment, and that most successful is to incise the os and cervical

canal. This operation was first performed by Prof. Simpson, and his method has been generally adopted, but some of our American gynecologists have greatly modified it.

Dilatation of the cervix by tents, bougies, and metallic sounds has been so unsatisfactory in the treatment of these forms of sterility that we should not continue their use, and clinical experience shows that incision is not only the most successful but less painful treatment and is followed by fewer complications. The bad results occasionally met with are cellulitis, peritonitis, and hemorrhage.

Prof. Simpson used a one-bladed uterotome and divided the constriction and lips of the cervix bilaterally from within outwards, using no speculum and depending on his finger as a guide. With a speculum we can see what we are doing and the extent of the incisions. Greenhalgh, Martin, Mathews, and Coghill have each devised uterotomes with two blades, but they are all complicated and fail to do their work perfectly, and the operation has to be completed with the scissors. An operation more effective and full of simplicity is that of Dr. Sims, who cuts only with the scissors and knife. His operation and that of Prof. Simpson are intended to accomplish the same purpose. Prof. Simpson operated in the dark; Dr. Sims brings the os into view. Prof. Simpson cuts from within outwards; Dr. Sims from the os externum to the uterine cavity. After introducing his speculum and bringing the cervix well into view, he divides it bilaterally with a strong pair of scissors nearly up to the vaginal attachment. If the os internum be contracted he then incises the tissues on each side up to the uterus, with his blunt-pointed knife, the blade of which being separate from the handle, can be inserted at any angle desired. In order to guard against excessive contraction from the healing process, authors introduce into the uterus bougies, sounds, dilators, and intrauterine stems, as suit their peculiar views; some recommending their use on the third or fourth day, others from the sixth to the tenth. The operation should be performed soon after the menstrual flow in order that the cut surfaces may be covered with mucous membrane by the next period.

Valvular closure of the os or canal may result from a congenital or acquired crescent-shaped os, or from some abnormal condition of one of the lips, causing it to overlap the mouth of the uterus. In the first

instance we may remove the obstruction by dissecting out a triangular wedge-shaped piece, extending nearly to the os internum, and in the second by amputating that part of the cervix that causes the closure.

(4) *Obstructions from Malformation or Displacement of the Cervix.*—The infra-vaginal cervix descends into the vagina from one quarter to one third of an inch at an angle of about 120 degrees, with the os directed toward the posterior wall. It is truncated and has a diameter of about three quarters of an inch. As this represents the natural cervix, and that most favorable to conception, any other size, form, or position will prevent conception in proportion to the deviation from the normal. Conoidal and hyphertrophic elongation are causes of sterility and should be treated alike. A large number of cases tabulated by Sims shows a conoidal cervix in nearly eighty-five per cent of natural sterility, also that this peculiar formation is generally associated with a contracted os externum. That surgical treatment is sometimes successful in these cases we have practical proof in the experience of Simpson, Sims, Barnes, and others who have thoroughly tested it. In defective development of the cervix but little can be done, and we shall only speak of those cases where it is elongated. The end to be attained is to reduce it to the proper size. Until recently the only means known to us for accomplishing this purpose was to melt it down with caustics, but this treatment is troublesome and protracted, and the results are never what we desire. A better method, which is simple and satisfactory, is to amputate. This was frequently done by Lisfranc. Huguier has recently brought it prominently before the profession in his amputation of the supra-vaginal elongation in procidentia, and the operation is now generally considered legitimate. The dangers attending it are few, death having occurred but twice in ninety-one cases of Lisfranc, once with Sims, and not at all with Huguier. We must guard against opening the peritoneal cavity by cutting above the vaginal attachment, or wounding the bladder or rectum. The scissors is preferable to the knife, ecraseur, or galvanic cautery. In amputations with the ecraseur or cautery we have a large granulating sore that will require four or five weeks to heal, and there is always great tendency to contraction. With the ecraseur it is difficult to tell how much tissue will be included, and there is a probability of cutting through Douglas's cul-de-sac into the peritoneal cavity—

a misfortune that happened to Sims when he was attempting to convince Prof. V. Mott that this instrument should be accepted as a valuable addition to uterine surgery. I do not object to the knife, but can see no superiority it possesses over the scissors, and severe hemorrhage is much more likely to follow its use. With either we can divide the cervix at any point we desire, and union by first intention is obtained as readily after the use of one as of the other. The scissors should be strong and so curved at the point as to enable us to divide the tissues of the cervix evenly. Sims has invented an instrument which he calls the uterine guillotine. To obtain immediate union the edges of the mucous membrane should be united by two silver sutures on each side of the os.

Some authors, over anxious about keeping the os open, introduce tents into the uterus to complete the operation, but they interfere with union by first intention and should not be used. If the os does become adherent it is easily divided; but the discharges from the uterus will most likely prevent its closure, and it will only be necessary to examine the patient within two or three weeks after the operation, and introduce a probe well between the lips, which may be repeated every week until all tendency to contraction disappears.

When the cervix is too large from chronic hyperplasia or hypertrophied induration, amputation not only diminishes its length but promotes absorption more effectually than any other treatment.

If a conoidal or elongated cervix is flexed from an uneven development of the lips it should be amputated at a right angle with the axis of the uterus, and the canal incised bilaterally.

(5) *Obstructions from Displacements of the Uterus.*—That displacement forms an obstruction to the entrance of the spermatozoa into the uterus there can be no doubt. Of 505 sterile women 343 had anteversions or retroversions; the anteversions preponderating in natural sterility, the retroversions in the acquired. This great proportion of malpositions could not exist did it not prevent conception. In displacements the position of the cervix is so changed that the semen does not readily come in contact with the os, and if there is flexion the angulation usually contracts the canal. We shall deal with those malpositions only that fail to correct themselves, and shall present what we conceive to be the most scientific and successful treat-

ment. They may be considered in the following order: Anteversion, retroversion, anteflexion, retroflexion, and procidentia. In anteversion, as in other displacements, we should endeavor to replace the uterus, and if possible retain it in position. The first step is so well understood that we shall speak only of the latter. The best means to accomplish this is by the use of a pessary or by shortening the anterior wall of the vagina. As the prime object of our treatment consists in the removal of every obstacle to conception, and as the displaced uterus, when not supported, ordinarily falls into its unnatural relations, it necessarily follows that we should use an instrument that can be worn during intercourse and will not oppose the transit of the semen. I am acquainted with none that accomplishes this purpose so well as the Hodge pessary or some of its modifications. In anteversions the one devised by Thomas, of New York City, is the best. Its basis is a Hodge lever, but attached to the anterior aspect of this basis is a horse-shoe lever moving upon elastic joints; the curve of the horse-shoe rises up behind the symphysis pubis and lifts up the fundus uteri. Satisfactory results may be obtained by the use of this instrument when carefully adapted to the case in hand.

Dr. Playfair has produced a modification of Thomas's pessary which consists in making the uterine arm of elastic watch-spring, covered with rubber. The Hodge pessary or any of its modifications, when properly adjusted, interferes so little with intercourse that the husband may not know his wife is wearing one.

The idea of correcting anteversion by shortening the anterior wall of the vagina first suggested itself to Dr. Sims, whose success surpassed his expectations. This is accomplished by denuding two semi-lunar surfaces about one half inch wide nearly across the anterior wall of the vagina: one immediately in front of the cervix, the other one or two inches below, as may be required. The surfaces should then be united just as in the operation for vesico-vaginal fistula.

In retroversion we must depend entirely on the use of the pessary, and we shall find the Hodge-shaped instrument superior to any other. Pessaries never do good unless adapted to the individual case; for while vaginas have a general resemblance, no two are precisely alike, and an instrument that serves our purpose well with one patient may

be positively injurious to another. I believe that the indiscriminate selection of pessaries and ignorance of their mechanism are the principal causes of the opposition to them. The instrument must be adapted to the vagina with as much pains as are taken by the shoemaker in fitting a shoe to the foot, otherwise it will cause uneasiness or pain and do positive harm. We are sometimes forced to try a dozen pessaries of different sizes and shapes to find one that suits, and for this reason I prefer, where the patient can remain under supervision, the block-tin, which is so ductile that it can be molded at will. But when she can not remain under our immediate care it is better to send the block-tin model to the instrument-maker to be duplicated in silver or vulcanite. They are not better, but being less ductile will not lose their shape by the careless handling of the patient.

If conception follows the use of the pessary it should be worn until the uterus ascends above the superior strait, in order to prevent impaction and its inevitable result, abortion. When inflammation has bound down the retroverted body of the uterus there is greater danger of abortion, but pregnancy and the gradual leverage of the pessary, I have reason to believe, may ultimately induce atrophy of the adhesions.

The treatment of versions is of course applicable to flexions, but here the prime object is to bring the cervico-uterine canal as nearly as we can into one axis, so as to afford free communication between the cavity of the uterus and the vagina. The axis of the cervix may be temporarily brought into coincidence with that of the body by the use of tents or Wright's vulcanite stem, but it becomes flexed too soon for conception to occur. Much better results may be obtained from the bilateral division of the cervix, or from splitting up the lowest incurved portion of the canal.

Procidentia is generally induced by hypertrophy of the uterus, elongation and enlargement of the cervix, or relaxation and dilatation of the vagina. When the displacement is the result of enlargement of the infra-vaginal portion, amputation will correct it; but if due to the other causes, all kinds of treatment are unsatisfactory, and we can not expect success except in the operation for narrowing the vagina just below the cervix. This is done by scarifying the boundaries of a trowel-shaped surface about two inches long and two inches

wide at the base, the apex being at the urethra, and the shoulder at the anterior cul-de-sac, in front of the cervix. The denuded parts should then be united by silver sutures.

Vaginal or uterine inflammation and other abnormal conditions may produce a secretion so poisonous to the spermatozoa as to destroy all vitality before they can enter the uterus. The truth of this assertion is so fully demonstrated by the experiments of Sims alone that other evidence is unnecessary. We should remove the cause of these abnormal secretions by the various local applications, and conception will follow.

Just here I should remark that the semen should be deposited at the proper time, and that conception is more apt to occur just before or after menstruation. Impressed with the fact that sterility is usually due to an obstruction to the entrance of the semen into the uterus, many practitioners have tried the experiment of introducing it directly into the cavity by means of a syringe. Sims claims to have impregnated one woman in this way.

In conclusion, let us remember that in sterility the fault is not always with the woman, and that it sometimes exists in the man from an inability to secrete living spermatozoa, or from some obstruction that prevents its ejaculation.

REPORT ON MATERIA MEDICA.

BY L. P. YANDELL, JR., M. D., OF LOUISVILLE, KY.

It is my purpose to offer a few thoughts on certain drugs which occupy considerable space in the medical literature of to-day and of the immediate past.

Bromide of potash, carbolic acid, chloral, grindelia robusta, damiana, jaborandi, eucalyptus globulus, nitrite of amyl, guarana, and salicylic acid comprise the list of medicines of which I shall speak.

Bromide of Potash.

This substance, though not yet half a score of years in general use, has become one of the standard remedies, and its consumption is steadily and enormously increasing. It was first introduced as a cure for goitre and enlarged spleen, and as an anaphrodisiac. To-day it stands at the head of remedies, for epilepsy, asthma, sick headache, and other neuroses. In mania â potu it is invaluable, and in certain forms of insomnia and of irritability of the stomach, bladder, and eye it is excellent. My observation leads me to consider bromide of potash least valuable, if not indeed useless in inflammatory troubles. In epilepsy this medicine, combined with atropine, I have not known to fail in effecting a cure in private practice during the past eight years, and in sick headache I have found the bromide well nigh as successful. In the Western Journal of Medicine, 1869, in an article on this drug, I earnestly commended it to the profession in the treatment of the above disease, and each year since has confirmed my faith in it.

Carbolic Acid

came into professional favor some ten years since, and for a time its employment was almost universal, in diseases local and constitutional,

hereditary and acquired, organic and functional, but to-day its use is somewhat restricted. As an antiseptic it still holds its ground with those who believe in antiseptics. As an antidote to animal parasites it is certainly efficacious, and as a vegetable parasiticide it is especially reliable. Internally administered I have thought it did good in prurigo, bromidrosis, and other neuroses of the skin.

Chloral Hydrate

is of more recent introduction than the two preceding. It has been in use since 1869. It has to-day a mixed reputation, but is growing in popularity. It is believed by not a few to be very dangerous, and is said to have produced death in doses even as small as sixty grains. In 1871 I made some satisfactory experiments with chloral on myself and on some of the university medical students, and since then I have unhesitatingly employed it in general practice, giving it in twenty- to forty-grain doses hourly till sleep is produced. In the insomnia of mania â potu, in the delirium and sleeplessness of continued fevers, and in hepatic and nephritic colic I know of no better remedy. Chloral I regard as our best hypnotic.

Grindelia Robusta

has been employed for three or four years. It has proved efficacious in many cases of asthma, but has also failed in many, and its exact value is not yet determined.

Damiana

is almost certainly an unmitigated fraud. Three distinct vegetable products are sold under the name. While it may have produced some very remàrkable results, these have been brought about, in all probability, through the imagination of the patient. Could a medicine be discovered possessing the aphrodisiac power attributed to damiana, half of the arable land of the earth would be devoted to its cultivation, and the supply would then not equal the demand.

Jaborandi

is a newer medicine than either of the others, and has not, so far, come into general use. In two cases of anidrosis, in which I used jaborandi, no results were apparent. Perspiration was finally restored by bromide of potash in one case, and by quinine in the other.

Eucalyptus Globulus.

A few years since no vaunted antidote to disease occupied a larger space in the public and professional mind than this. It was claimed to exert infallible preventive and curative power over all forms of malarial poison. Its reputation seems to be rapidly withering, and it may be already counted among our failures. It certainly has some antiperiodic power, but its superiors in this respect are almost innumerable.

Guarana.

This attracted great attention a few years back in the treatment of bowel diseases and for cephalalgia, but to-day it is little spoken of. In some cases of headache guarana acts like a charm, in many others it fails utterly, and its exact application it is impossible at present to define. When bromide of potash fails I next use guarana.

Extract Malt.

My personal experience with this medicine is yet too limited to justify a confident expression of opinion; but it certainly has produced remarkable results in cases of phthisis and chronic syphilis under my care, and I am inclined to regard it as a most valuable addition to our list of remedies.

Nitrite of Amyl.

This is to-day an accepted antidote in chloroform poisoning, in cerebral and cardiac spasm, and for the relief of asthmatic and epileptic paroxysms there is no doubt of its efficacy.

Salicylic Acid

is the last substance to which your attention is asked, though it is not claimed that all the new remedies or even all the possibly good new remedies are included in this report. But little more than two years known to us as a medicine, it has already achieved an immense reputation. Widely diverse opinions are held both as to its curative and toxic effects. Taking it for granted the members of the Society are familiar with the literature of the subject, and believing the most profitable reports are those made up from individual experience and opin-

ion, I shall confine my remarks to my own employment of salicylic acid. In nine cases of acute articular rheumatism admitted to the city hospital during my service there last winter salicylic acid proved a perfect cure. These patients were in charge of Dr. Howard, house physician, to whose courtesy I am indebted for notes of them. In every instance the disease was arrested within three days, and in several relief was obtained in from eight to twelve hours. Temperature was reduced in these cases, but only secondarily; that is to say, with the cessation of pain and diminution of swelling, or in other words, with the arrest of the disease the fever subsided. In no case, however, was the antipyretic power of the drug apparently a direct result. It was found best to continue the treatment for some days after the rheumatic symptoms had disappeared, in order to prevent relapses.

The patients took the acid in ten- to twenty-grain doses in capsules every one, two, or three hours; several complained of cough, tickling in the throat, sore throat, and burning in the stomach. A young Irishman thus expressed himself: "Doctor, that stuff beats all the medicine I ever took for the rheumatiz; but them catridges burns my stomach awful."

Ringing in the ears was produced a number of times and decided deafness in some cases, and two patients described things as having a "far off sound and appearance." In three patients with chronic rheumatism in the hospital no good results were had from the medicine.

In private practice I have used salicylic in five pronounced cases of acute rheumatism with entire success, and in an additional case salicylic acid, combined with quinine, broke up the disease.

CASE I. A young telegraphist, having a second attack, was much better in twenty-four hours, and was out of bed and at work in three days.

CASE II. A young railroad clerk was freed from pain in twelve hours, and never had a return of it. He continued the medicine for a week.

CASE III. A washerwoman. Within four days was benefited, and in two weeks well.

CASE IV. A lady somewhat advanced in life. For nine months had suffered more or less from rheumatism, during much of this time

being in the hands of the needle-doctors. I saw her at eight o'clock, A. M. Her suffering was very great, chiefly in the right shoulder. She sat with her arm in a sling, and had slept none all night. Flashes of excruciating pain passed frequently through the limb, causing her to cry out and to shed tears. For three days her suffering had been exquisite, and constantly augmenting. She took ten grains of salicylic acid in a half tumbler of milk every hour till bed-time, when she was quite comfortable, and, after a good sleep, next morning the limb was entirely supple and painless. She continued the treatment three days.

CASE V. A young lady was relieved in six days.

Some of these patients got ten, twenty, and even thirty grains hourly, and others the same doses at greater intervals. Cases are recorded where nearly an ounce has been taken in the twenty-four hours without injury, and Dr. Bartholow says, in his excellent Materia Medica: "Salicylic acid appears to be devoid of toxic power." Later writers warn us of terrible danger of collapse from large doses.

Salicylic acid is best given in milk. A powder of ten, twenty, or thirty grains rubbed into a paste, with a teaspoonful of cream, and given in a half tumbler of milk or cream, and administered every one, two, or three hours, I have found the least objectionable method of its employment.

The acid gives the milk a sweetish-sourish taste, and a little tickling and sense of slight constriction may be felt about the throat, and an insignificant cough is not uncommon.

No heart trouble occurred in any of the foregoing cases. In conclusion, I have to say of salicylic acid that it is the first and only remedy that has proved itself at all reliable in the control of acute rheumatism in my hands.

Salicylate of soda has shown no superiority over salicylic acid, and salicine has become so expensive, owing to the failure of the willow crop in Germany, that I have not used it. It is now nearly as costly as quinine, and must be given in forty- and sixty-grain doses, its advocates say, in order to prove efficacious. Some years since, at the University Dispensary, I employed this drug quite extensively in intermittents, but got, altogether, unsatisfactory results. It is a very feeble antiperiodic.

THE PATHOLOGY AND TREATMENT OF SPRAINS.

BY RICHARD O. COWLING, M. D., OF LOUISVILLE, KY.

The importance of sprains can not be too carefully kept in mind. They are the fruitful sources of lameness; they lead to the destruction of joints; they may be the determining factor in malignant disease; they cut a ghastly figure in the causes for amputation.

The qualification of "simple," which so often accompanies reference to this injury, is a dangerous one, leading to neglect and disaster. It is a matter of experience that useless limbs have resulted from "simple sprains" as often as from those which had been denominated "severe." It was to emphasize this point that Sayre gave the quaint title to his essay, "Sprained Ankle, or the misfortune of not breaking your leg." It may indeed be written of sprain, in language similar to that used by Percival Pott in reference to head-injuries, that there are none so severe that may not be recovered from, none so slight that they may not destroy the usefulness of the limb. Every sprain is worthy of attention, and should receive professional treatment.

The diagnosis of sprains is not always an easy affair. Between them and fracture, or between them and dislocation, it is oftener far more difficult to distinguish than between dislocation and fracture, which is the problem in differentiation generally set for solution. The several varieties of arthritis—simple, rheumatic, and specific—are continually confounded with them, and I at least have mistaken malignant disease for sprain.

Our knowledge of the pathology of sprain (and indeed of the whole subject) has improved much of late years. While not disregarding constitutional causes in the explanation of many symptoms which may arise during the progress of a sprain, we do not take refuge in the diatheses as much as we were accustomed to do formerly. We look

more to the local condition of affairs for a solution of the difficulties. The problem has been greatly simplified.

A number of lesions resulting from a fall or twist may come under the name of sprain. Strictly speaking, the term should be confined to the stretching of the tissues around the joint, the muscles, tendons, aponeuroses, nerves, vessels, and ligaments; but the causes which give rise to this may, and do oftenest, lead to rupture of some of these structures. The articular surfaces may also be involved to the extent of erosion or displacement of cartilages. It must not be forgotten, too, that the stretching of inelastic tissues damages their integrity.

The symptoms following acute sprain are readily accounted for. The weakening of the vessels and consequent congestion, the unyielding aponeuroses, the swelling in a part not fitted to swell, the already injured nerves exposed to continued pressure, plainly explain why it is that a sprain hurts so badly. The damage done to the structures not only by rupture, but simple stretching, not unnaturally may induce an inflammatory stage. The derangement of the exquisite adaptation of the many elements contained in the joint and its motors, made up so much of tissue naturally slow to repair, the extravasations and exudates thrown in such quantity on the absorbents to be carried away, tell why it is that time must elapse before the functions of the joint are resumed. The history of events naturally flows from the primary violence; but there are cases in which the persistence of symptoms is out of all proportion to the damage inflicted at the outset.

Chronic sprain may follow upon acute sprain, or its subacute character may have been so from the first. Violence may not have induced it. A high heel or a run-down boot may cause it at the ankle; and I have seen a painful sprain of the middle finger of a lady gradually set up by the continued lifting of a heavy coffee-pot, all the symptoms as gradually disappearing when an urn was substituted.

The appearance of joints in chronic sprain is quite uniform. They are cold, they are discolored sometimes even to positive blueness, they are swollen, while the limb above is wasted. Swelling, however, is not constant; joints of seemingly perfect shape may be useless. Motion in them is difficult and accompanied with pain. On manipulation tender spots are discovered in the neighborhood. The situation of these spots is pretty constant for the several joints; to the outside

about the insertion of the biceps in sprain of the knee, to the outside and inside forward on the tarsus in sprain of the ankle, etc.

Languor in the circulation is the prominent feature, and the key to most of the conditions. There is malnutrition, local in its origin. Absorption is in abeyance. Plastic deposits resulting in the inflammatory stage, or slowly gathering as the result of chronic congestion, are not taken up. Adhesions are formed. Tendons, ligaments, and aponeuroses are shortened by continued disuse. The bodies of the muscles waste, and then contractility is lost. The nerve-structure has not been repaired. New fibers have been developed in adventitious tissue, and they all alike cry for good blood, and moving blood. With such a condition of affairs loss of function, pain, and tenderness naturally continue.

As violence instituted the acute sprain, prolonged rest is the chief factor in keeping up chronic sprain. We see, indeed, effects closely resembling those of sprain when no violence has been done to the particular part; as in the stiff knee, when the dressings for fractured thigh (far away from the joint) have been used long; the stiff elbow, when the arm has been carried for a while in a sling, it may be, for a wounded hand. And the rest not only accounts for the rust and shortening of tendons, etc., but the vessels about the joint are by nature fitted for the motion they must receive in the movement of the joint, and can not, but to the detriment of their use, be denied this too long. We are accustomed to refer the ill results from sprain from motion too early set up. It will be more convenient to reconcile this theory with the one presented when we come to the treatment of chronic sprain.

One word only as to the constitutional involvement in chronic sprain, and we pass to the consideration of treatment.

That the cachectic condition of very many subjects of chronic sprain is an effect, and not a cause, is well attested. It is not peculiar to this injury that local irritation may at length extend its influence to the impairment of general functions. While struma and rheumatism and syphilis may complicate this injury, and call for specific treatment, they are often blamed for what they do not deserve. The barren results from the use of the oils and iodides on one hand, and the brilliant results from local treatment upon the other, have shown this time and again. Surgery has had some sharp lessons taught it

upon this point from very humble sources. Specific treatment may be called for, and especially tonic treatment, in addition to local measures instituted to restore the natural condition of the joint; but these last are of prime importance.

The means of treating sprains are by immobilization, mobilization, and extension; and mobilization may be sudden and with force, as in the treatment of anchylosis; it may be gradual, and accompanied with friction and "massage;" it may be combined with extension. Beside these there are several adjuvants of treatment, constitutional and local, which can not be conveniently classed.

It will simplify matters if we direct our remarks chiefly to treatment of sprain at the ankle-joint (the seat of most of these injuries), and refer cursorily to sprains in other localities.

The safest treatment for acute sprained ankle is by immobilization.

The history of such a case, when it has been severe enough to cause a physician to be sent for, is generally this: domestic remedies have been tried; the ankle has been bathed in cold water; rags wet with arnica, brown paper steeped in vinegar or liniments have been applied to it; and probably little relief has followed.

The first thing to be done is to elevate the limb upon a pillow, if this has not already been attended to; next, to bathe the foot in hot water, which will generally be found more effectual than cold. It should be of the highest temperature tolerable by the patient, and had best be poured upon the ankle while the limb is still elevated and extended over the foot of the bed. When the foot is dipped into a vessel containing the water, which is the usual method followed, the necessarily dependent position of the limb mars in a great measure the efficiency of the remedy by favoring the congestion, which gives rise to so many of the symptoms to be subdued. During the affusion, which should last twenty or thirty minutes, the foot and ankle are to be stroked upward gently, at first, and with increasing pressure as it can be endured, and the joint moved carefully. It is more than probable that the patient will shrink from this portion of the treatment, but a speedy relief from his pain generally reassures him as to its efficiency, and allows it to proceed. Comparative ease having been established, immobilization of the joint is best secured, I think, by the many-tailed or strip bandage covered by the roller. The strips made of

muslin are wet and applied from the root of the toes to a point eight or nine inches above the ankle. These are covered with a flannel roller carried well up to the knee. We have here a very rational remedy. The heat and moisture continued in the many-tailed bandage, the compression and support offered by this and the roller to the weakened vessels, removing congestion, aiding absorption of the exudates, relieving spasm, and preventing further violence, go directly to the seat of the difficulty.

The patient having been rendered comfortable (a visit to a sprain is likely to consume an hour or so), may be left with directions for an opiate to be taken if from nervousness he can not sleep, and for removal of the bandage, if this from any cause may induce or aggravate pain. Hypodermic morphia or atrophine have been advocated in the outset of sprain. Though I have not used them, I can conceive their use to be beneficial at times.

Sprains of a mild character may be trusted at first to the wet towel, which is a favorite method of treatment, but there are few which do not demand the roller before weight can be borne upon the joint they involve.

Immobilization may be continued by means of the roller, leaving off the wet bandage beneath, after four or five days, when the acute inflammatory stage is passed. It is tedious to keep it up during the period necessary for the cure of a severe sprain, which may last several weeks. It should not be left to the patient or any of the patient's accomplished friends to apply. It is best, therefore, to replace it with plastic apparatus (the happy name given by St. John, of New York, to the various dressings commonly known as immovable). This may be made with any of the stiffening materials in use. It was my custom formerly to make a boot of manila paper strips, which is wonderfully stiff and light; but it is tedious to make them, and of late years I have almost invariably used the plaster-of-paris dressing. The old starch bandage, or flour and egg bandage, or silicate of soda bandage of course will do. The plastic dressing, of whatever it be, must rest on a proper layer of cotton batting. Without this the dressing not only loses its peculiar usefulness, but is fraught with danger. The plastic boot constructed for sprain may gradually be shortened for the convenience of the patient by cutting away the tops until it becomes

a high gaiter, still keeping the ankle at rest. It may be split in front, so that the limb can be removed at pleasure, for the purpose of friction, etc., and secured while on by the loop bandage. The patient, after a few days from the receipt of his injury, may be out on crutches, his foot in a sling-bandage, if necessary, secured around the neck. This may soon be discarded, as the support from the boot allows him, without pain, with the aid of his crutch, or even without it, to bear weight upon the injured foot. Before dismissing this part of the subject, I may say it is a very frequent practice to use the plastic dressing from the outset. I prefer, however, the more direct compressure exerted by the roller in the earlier stages.

The above details apply to a case of "severe sprain," one in which the lesion amounts to actual rupture of tissue, and the immobilization is kept up for its repair. Its severity, as already stated, is not called for in sprains of lighter degree; but it is upon this very point that the great difficulty in understanding sprains exists. I have referred to the point that the most serious results have followed upon simple sprains. The patient had continued to walk upon the foot, it is said, until serious mischief had resulted. It takes something more to explain the difficulty than this, at least if we wish to reconcile it with the experience of those who practice early movement as a cure. I think it will be found to be in this: the person does not walk naturally on the slightly sprained foot. We see that he limps. The movements of the joint are constrained. If the injury has not been severe enough, or the effects have subsided sufficiently for him to take free steps, difficulty is not likely to arise; but if this is not the case, in the half-way manner in which the joint is used, it is actually suffering from the combined effects of prolonged rest and continual irritation. My attention has more than once been called to the fact that immobilization is not absolutely necessary from the first, even in cases of sprain apparently severe, and have caused me to think much upon the means of discovering where the line was to be drawn. Two of my friends got sprained ankle within a day or so of each other, and apparently very severe sprains. One submitted to my treatment, had a plaster boot, etc., and was all right in about a month. The other declined all restraint, rubbed his purple and swollen ankle, walked out heavily upon it, as he said, the day after his accident, and continued to walk in a very short

time without inconvenience. He was a soldier, of vigorous build and indomitable pluck. He told me that the accident had frequently occurred to him during the war, and he had learned from experience that this was the best treatment for him. A man upon whom I had once put a plaster boot for severe sprain told me afterward that it was "next to the best way he ever saw of treating sprained ankle; he had had it several times, and could walk it off if he started in from the first." This man drank freely, and was generally fortified with liquor. A young lady had a sprain frightful to look at, extravasation extending from the instep up to the calf. It did not pain her much, she said; sent for me to quiet her mother's fears. In spite of my lecture upon the danger of neglect, she took off the bandage and put on a shoe the next day after my visit, escaped confinement to do her spring shopping, and had no serious results, nay, no inconvenience. But I confess that I am afraid to recommend such practice; and in joints of the lower extremity which have to sustain weight, must consider that immobilization is the safe practice in acute sprain. If the injury has resulted in intra-articular trouble the experiment would be highly dangerous. I have alluded to early movement as a palliative of pain in sprained ankle. In a number of cases of sprains in the joints of the upper extremity I have relied upon it exclusively. I was led to it, independent of my reading, from the following circumstances: A few years ago, after a sleet, by one of those curious coincidences which occur in practice, three cases presented themselves to me for injury at the elbow resulting from falls. In all of these pain and voluntary immobility were prominent symptoms. In the careful examination and frequent movements necessary to diagnosis at this joint, while I discovered that the trouble was sprain, I saw also that the patients were more comfortable after I had done with them than when I commenced. Immobilization and the continued warmth of cotton-batting, however, is still a most useful way of treating sprains of the upper extremity, and the hot water douche at times invaluable.

Mobilization has no substitute in sprains of a certain character. Passive motion is frequently necessary after a joint has been fixed for a time. The patient's will may not be strong enough for him to make it for himself, and its neglect has often caused the best instituted treatment to result badly. The use of mobilization in chronic sprain is

one of the most brilliant achievements in modern surgery. Practiced ignorantly for a century perhaps by the "bone-setters," at a comparatively recent date a knowledge of its rationale and limits have been determined by the regular profession. Its action at times is magical. The method of the "bone-setters" offers the most striking example of its usefulness. This was ably set forth by an English surgeon, Mr. Hood, in several papers in the Lancet five or six years ago, afterward published in a small volume. He had learned it from a Mr. Hutton, one of the most successful practitioners of the kind in England, a man perfectly ignorant of anatomy and pathology, but who had treated successfully cases which had limped for years under the first surgical talent of Great Britain. The principle is the same at all joints, and easy to practice. Hutton's idea was that all joints not plainly inflamed, etc., were "out," and his business was to get them back by manipulation. He prescribed a poultice persistently applied for a week. His manipulation was then done in the following manner: With the thumb of the left hand pressing closely on the tender spot which always exists near a joint in chronic sprain, with the right he performed flexion, extension, and circumduction, or rather a rapid twist. Sometimes after the first, at others after several movements of this sort, a pop is heard. The joint is "in." The patient, who may have been a sufferer for years, experiences immediate relief to a great degree, which is increased rapidly by further manipulation, and is cured in a trifling time. The pop, as explained by Mr. Hood, is the breaking of the adhesions, for which the sudden movements are instituted. With the rupture of these the restoration of the circulation, the adventitious material is absolved, and with it goes the hyperæsthesia. The confidence of the bone-setter in his practice is no unimportant factor in the cure of the patient. Of course he will fail in a number of cases. Success in a few, however, is enough to stamp his procedure as a marvel. Experience teaches the best of them in which variety of joint injury to practice, chiefly those not marked with inflammatory symptoms. I have practiced sudden mobilization in a number of cases, sometimes with wonderful success. A lady treated first with plastic apparatus for sprained ankle, resulting badly, limping for a year, and presenting the usual signs of a chronic sprain, was cured with one movement. A man with trouble in the hip-joint, who was treated for fracture (erroneously),

bed-ridden for several months, was put on his legs again after a month, during which time the movement was practiced half a dozen times. His improvement was well marked from the first. A young lady from Alabama, whom I saw with Prof. Yandell, on crutches for two years from a sprained ankle, returned home able to walk after forcible manipulation under chloroform. These are striking examples which have come beneath my notice. I have failed in a greater number of cases with the twist, sometimes, though not always, succeeding with other methods. Apparently one of the most favorable cases for the practice was in a girl under the treatment of Dr. Roberts and myself for several years. There was nothing about her ankle which indicated that it was unfit for use. She had sprained it, got on crutches, and, as happens with timid people at times, would not give them up. We practiced Hutton's method, heard the cracking, but nothing could induce her to try to walk without support. I made several more sudden movements at subsequent periods, prescribed the massage, which I have seen can not be intrusted to the patient's friends, but failed to get any benefit. She subsequently was put in a plaster boot by Dr. Roberts, and has worn it two years. She has gotten enough confidence to give up her crutches, and go without the boot a few days at a time, and apparently will be restored. The immobilization in this case is not so entire as to preclude all motion at the joint.

It is highly important to remember that the crutch may become a most dangerous enemy. A prominent lawyer of Louisville hobbled for two years on crutches from a sprained ankle; was treated by every method save motion; saw Paget and Nélaton about the matter, and was ultimately cured by Markoe, of New York, who simply took away his supports. He actually walked from the first moment they were left off.

Massage is one of the most scientific of procedures for the relief of sprain. Its name and usage in modern times come from France, but the process is older than the Cæsars. Nor are its most brilliant results confined to this injury alone. I had best allow one of its chief advocates in this country to give its definition. In a paper published in the Philadelphia Medical and Surgical Reporter, September 5, 1874, Dr. Douglas Graham, of Boston, says:

"Massage is in its widest acceptation a hygienic and therapeutic agent, consisting not of friction, percussion, pressure, or movement alone, but of a permutation and

combination of all these varied modes of applying force to the surface and underlying tissues of the human body. In its most limited sense it is understood by the profession at large as "rubbing," but its pre-eminently useful maneuver is what the word massage literally implies; viz., kneading, pressure with movement, malaxation."

The motion in this plan is done gently, and with the massage increases as the patient may stand it. It has been advocated in sprain at all periods, but chiefly in chronic sprain. I have said all my space allows me of its applicability to acute sprain. I can not do better, in describing the process, than to copy from an excellent report of a case treated by this method made by Dr. W. R. Fisher, of New York, in the New York Medical Journal of January, 1874. The case was one of chronic sprain of aggravated character. Here is the description of one kneading:

"The whole limb from the knee down was first rubbed and kneaded for twenty minutes, lightly where the parts were tender and forcibly where the pressure was well borne. The skin was sponged with water and dried with a towel whenever the epidermis became dry and heated by the friction, and was in danger of being rubbed off. (It may here be remarked that oil is sometimes applied to the skin to prevent this accident.) Then the manipulator passively exercised the toes in various directions, and very gently moved the ankle-joint in the direction of extension and flexion. The extent of movement in the latter was governed by the amount of pain which it produced, care being taken to avoid giving rise to more than slight twinges, which could be borne without suffering. These maneuvers occupied about five minutes, and were followed by kneading and frictions a little more forcibly administered, which in turn gave way to the passive movements alternating until the whole treatment had continued for an hour and twenty minutes."

The exercises were repeated daily for seven days; during the last three reached to three quarters of an hour; on the seventh day the natural curve of the foot was restored. The patient walked with mechanical support; in three weeks gave up her crutches, and was ultimately restored to full bodily health with sound limbs. I give this extract to show that massage is a matter of skill and patience, and, as those who have experienced it in the Turkish bath will bear witness, one of physical endurance. Its rationale in the introduction of good blood to the parts is apparent. Its usefulness can not be overestimated, and failures from a few minutes' hand-rubbing must not be set down to its account.

Under this head of "Mobilization Continued" I report that in a case under my charge, of chronic sprain at the shoulder, where pain, in certain movements (elevation), and shrinking of the muscles are shown

after four months' inactivity, the patient has received great benefit from the health-lift. He will not submit to forcible circumduction nor to massage.

Extension is practiced in sprain, not without results. It is done with weight and pully (Buck's method), and can only be superior to other methods where the trouble is in synovitis. If the trouble be intra-articular adhesions (Hood) the method by manipulation promises better and quicker results. It has the disadvantage of forced rest at a point where this is hurtful. To avoid this Sayre treats by extension, with motion, on the same principle as his method in hip-joint disease. As this method requires instruments fitted to the case, it is not likely to be of the general service of other plans we have referred to. It is more specially applicable to intra-articular trouble, but in extra-articular trouble also as motion is allowed, it has every advantage over extension by weight and pulley. Its success in the hands of its originator has been marked.

In conclusion, I may say that the chief difficulty in the treatment of the acute sprain is in getting the patient to submit to the necessary restraint. No directions can be given for the tact required by the surgeon to effect obedience to his commands, but the clearer his ideas be concerning the injury before him the easier will it be for him to make converts of those who come to him for treatment. In chronic sprain the conditions are reversed. It is the patient then who is anxious to submit to any thing for his relief, and the physician who must be aroused to action. The lazy prescription of a liniment, or directions left to the patient or the patient's friends to carry out, will not do. His personal superintendence is required, and the expense of not only his mental but physical energies. And the rewards of these are not surpassed by any of the achievements of surgery.

REPORT ON DERMATOLOGY.

BY L. P. YANDELL, JR., M. D., OF LOUISVILLE, KY.

Syphilis, Scarlatina, Measles, Variola, and Varicella.

In the brief report on dermatology which I had the honor to make to the Society, at its last session, my remarks were confined to the skin diseases proper, meaning by this term those non-specific affections whose major symptoms are observed on the skin, and whose demonstrable existence indeed consists in most instances solely in the eruption. This division of the subject is of course purely arbitrary, and is merely adopted for convenience.

The correctness of the views expressed in my previous report as to the etiology and therapeusis of the maladies of the skin, has been confirmed by twelve months' observation in hospital, dispensary, and private practice; and I now reiterate the assertion then made, that "the most abundant source of acute skin disease is that mysterious something which we call malaria; the diathetic poison known as struma is the chief source of the chronic skin diseases; and to these two *materies morbi* we may trace the greatest number of diseases of the other tissues." Be it understood I am not now including the specific exanthems; and I do not claim that malaria and struma are the sole causes of the true skin diseases.

On the present occasion it is my purpose to consider, as briefly as possible, the specific exanthems: these are, scarlatina, measles, variola, varicella, and syphilis.

Scarlet fever (*scarlatina*) was known to the profession as early as the sixteenth century; but its specific nature was first established by Morton about the middle of the seventeenth century. (Ziemssen.) Up to the present day the profession is not of one mind as to the best treatment for it. Our main reliance is in attention to general condi-

tions, not neglecting local symptoms. Quinia, iron, and heart tonics, together with baths and anointings, comprise the most promising remedies. Belladonna, either as a preventive or curative agent, is no longer to be thought of. As to the name and symptoms of scarlatina there is do dispute, but its contagiousness, though generally conceded, has some firm opponents.

Measles, formerly denominated *rubeola*, and now called *morbilli* by many writers, is said to have been known during the fourteenth century, though its specific nature was not established till about the middle of the last century. The term *morbilli* means literally "little disease," and was first employed, according to Hebra, to distinguish measles from the greater and graver disease, the plague. Measles is from the German word *masar*, a spot; and *rubeola* signifies a reddish color. By this name, in former times, several distinct diseases were called. At the present rubeola is frequently used to describe what is otherwise called *rötheln*, or German measles. This is an extremely insignificant malady, closely resembling the milder cases of measles. Little, if any, treatment is necessary, and the prognosis is favorable.

In the management of measles much improvement has been made within the last quarter of a century. The self-limited nature of the disease, its brief duration, and its tendency toward recovery, in the great majority of cases, are now recognized facts; and it is only for the relief of symptoms of unusual severity, or for some complication, that medical interference is demanded. The patient should be allowed food and drink, hot or cold at will, and good ventilation should be secured.

Variola is probably of eastern origin, and is of incalculable antiquity. A hundred years ago it was the most dreaded and the most fatal of diseases. At that time it was far more exceptional for persons to escape smallpox than it is now for them to contract it. It was estimated that from ten to twelve per cent of all the deaths then occurring were due to this scourge. Jenner's great discovery, vaccination, though still violently opposed by a few medical men, has robbed the disease of much of its terror; and it is believed by some that it not only prevents smallpox, but that its influence on the race in general, by heredity, has been to diminish its virulence. Were vaccination universally performed, it is probable that total eradication of variola

would eventually be accomplished. The contagiousness of smallpox, although almost universally admitted, has its opponents. In the treatment of variola we have no late advances to record. To make the patient as comfortable as possible, to treat symptoms, to assist nature, comprise all that we can safely do.

Varicella, or chickenpox, though one of the specific exanthems, is of no importance, and requires, as a rule, no treatment; but in obstinate, protracted cases quinia and iron are demanded.

I come now to the gravest of the specific exanthems. Though seldom occurring in epidemic form, and less violent than scarlatina and variola, it exists at all seasons and in all countries, and is ever increasing. I speak of *syphilis*.

The origin of the word *syphilis* is an unsettled question, and I venture to offer a theory on the subject which seems to me more probable than any hitherto suggested. "The town disease," "the town disorder," are terms used by the lower classes, and especially among the rustics, to indicate this affection. Syphilis, from our first knowledge of it, has been eminently a city disease. The Latin word *civilis* signifies pertaining to a city or to citizens; and it occurs to me that *morbus civilis*, *i. e.* citizens' disease, or city disease, was probably the first popular name for syphilis. Furthermore, it is perfectly natural, and in accordance with popular custom, that, for the sake of brevity, the word *morbus* should have been dropped, leaving only *civilis*. The alteration in the spelling of the word is not remarkable. Chancre was once spelt *shanker*, scrofula was spelt *scrophula*, and often we find even the meanings of words wrenched entirely from their original signification. For instance, gonorrhœa literally means a flux of semen, indolent means painless, and collyrium, which to-day means an eye remedy, once indicated a cylindrical medicine to be introduced into the anus, vagina, or nostril.

Any extended history of syphilis in a paper like this would be out of place, and I shall therefore only venture to make a few remarks concerning the origin of the disease. In Lord Bacon's Natural History, printed about the year 1660, page 6 ("Experiment solitary, concerning the *venomous quality of man's flesh*,") he says: "The French (which put off the *French disease* unto the name of the *disease of Naples*), do report that at the siege of *Naples* there were certain wicked

merchants that barrelled up *man's flesh* (of some that had been lately slain in Barbara) and sold it for Tunney;"—[tunney-fish, I presume—L. P. Y., jr.]—"and that upon that foul and high nourishment was the origin of that disease. Which may well be; for that it is certain that the *cannibals* in the *West Indès* eat *man's flesh*; and the West Indés were full of the Pock when they were first discovered. And at this day the Mortalest Poysons practised by the *West Indians* have some mixture of the blood, or fat, or flesh of man. And divers Witches, and Sorceresses, as well amongst the *Heathen* as amongst the *Christians*, have fed upon *Man's Flesh*, to aid (as it seemeth) their imagination with high and foul vapors."

This absurd theory of Lord Bacon's, it is unnecessary to remark, is not entertained at the present day.

Among other conjectures as to the origin of syphilis, sexual intercourse on the part of soldiers with mares affected by farcy has been suggested; also sexual intercourse between the human species and the hog, and sexual commerce between individuals of different races and climates. These doctrines have no followers among modern syphilologists.

It is an interesting fact that almost every nation has been charged with the paternity of the pocks. It has been called the American disease, the English disease, the French disease, the Italian disease, the Polish disease, the Turkish disease, and so forth to the end of the chapter of peoples.

Wars have been, in all likelihood, an important factor in the development and spread of syphilis, and the armies are most probably the authors of the nicknames just enumerated; for we know that soldiers are not remarkable for chastity, and are not niggardly in the bestowal of hard names on the enemy. Whatever be the origin of syphilis, and probably we shall never determine the manner of its birth or the country of its nativity, this much we do know, that syphilis is to-day universal in its dissemination, and is steadily increasing in all lands, and that its spread is most marked in countries of the highest civilization. Indeed, it may be said that civilization and syphilis march hand in hand.

The prophylaxis of syphilis, this most loathsome of acquirable diseases, is one of the great questions of state medicine of to-day.

So far no practicable plan for its arrest has been devised, and I freely confess I have no suggestion to offer. Indeed, until the human race become virtuous, there is, it seems to me, but little hope for a decrease in syphilis.

Venereal diseases in the past were regarded as among the *opprobia medicorum*, and were relegated to the surgeons, who, in times gone by, occupied a position less honorable than that which they have since carved for themselves. To-day these affections are claimed by the dermatologists as properly belonging to their branch of medicine; but here, in Kentucky, where despotic specialism is less arrogant and dominant than in some other quarters, every practitioner is more or less of a syphilologist.

Those of you who are familiar with the literature of syphilis, are aware of the wide diversity of belief among the recognized authorities; and, since we have no established creed, I feel myself at liberty to offer the following brief statement of some of the more important practical truths of syphilis as they appear to me. These are opinions based on twenty years' clinical observation and study of the subject.

Syphilis is a unity. It is due to but a single poison, and can not be produced by any other. Syphilis never produces any other disease than syphilis.

The syphilitic virus is inoculable by means of the blood, milk, saliva, semen, pus, and all the other normal and abnormal secretions of syphilitic subjects. This virus, in order to produce its effects, must go directly into the circulation. Applied to the unbroken skin or mucous membrane, it is harmless. Taken into the stomach, it is inert. In these respects its behavior corresponds with the poison of reptiles, insects, rabid animals, and the vaccine virus.

Syphilis may be transmitted by either parent to the offspring.

A syphilitic father may beget healthy children, and a father once syphilitic, but to all appearances cured, may beget syphilitic children. A sound mother may bear syphilitic children without herself becoming contaminated; or she may acquire the disease from the child during the process of gestation.

Syphilis is communicable by contact, and transmissible by inheritance in all its stages; least so in the tertiary.

The division of syphilis into three stages is purely arbitrary. The

same poison exists in each, and may show itself in the offspring in either of the forms called primary, secondary, and tertiary.

Acquired syphilis appears in the form of what is known as primary, though this stage may escape the observation of both patient and physician, and the secondary may be the first syphilitic manifestation to arrest attention. Inherited syphilis appears as either secondary or as tertiary.

The rule in acquired syphilis is that secondary next follows primary, the tertiary succeeding the secondary; but the tertiary may precede the secondary, and the secondary may never appear at all.

Primary syphilis, initial lesion of syphilis infecting chancre, Hunterian chancre, indurated chancre, hard chancre, true chancre, are synonymous terms. This lesion may occur on any portion of the body, but most frequently it appears on the sexual organs, because of their more frequent exposure to the venereal accident.

An unique induration, a peculiar hardness, is an almost invariable feature of the primary lesion. This sore is usually single, painless, non-suppurating. It is discovered within a period varying from eight days to three months after exposure. Bilateral, symmetrical, or, in other words, simultaneous enlargement of the lymphatics of both sides of the body commonly accompanies syphilis.

Secondary syphilis shows itself within three weeks to three months after the primary. Tertiary comes on within three to six months after the beginning of the secondary. All the stages, in rare instances, may co-exist, and the primary sore often lingers after the secondary symptoms are thoroughly established.

Suppurating bubo is an exceptional accident in syphilis. It is not a natural feature of the disease. Unless the subject of indurated chancre be in depraved health, or the sore be injudiciously treated, glandular suppuration will rarely happen. Phagedæna is likewise an accident in syphilis, and has no natural connection with it. Malaria, alcohol, malnutrition, and local constriction are its usual sources.

Treatment.—Destructive cauterization and excision should never be resorted to, either in genuine chancre or any other venereal sore. The so-called soft chancre, chancroid, non-infecting sore, never deserves to be cut out or burned out, because it never contaminates the system. It can no more produce syphilis than can scrofula or cancer. The true chancre should never be cut out or burned out, because the system is

already contaminated when it is perceived. Its existence is positive proof that the system is already poisoned. Excision and cauterization irritate the sores, aggravate the existing inflammation, and thus enhance the chances of suppurating bubo.

Venereal sores require exactly the same treatment as other sores, and heal most quickly under the application of anodynes, astringents, and protectives, accompanied by the internal administration of iron and bitter tonics. The occasional application of sulphate of copper often promotes their healing. Soap and water are irritants to syphilitic sores as they are to all others, and should rarely be used in the management of any of the solutions of continuity. To cleanse the sores oil is the best material.

Diet in Syphilis.—The diet should be the best at the patient's command, and meats and fats should be especially insisted on. Tobacco and alcohol must be imperatively prohibited in all the stages of the disease. They act both as local irritants and constitutional poisons.

Secondary and tertiary sores require the same management as the primary lesions in all respects. Far too much attention is usually given to local treatment in syphilis, as in other eruptive diseases.

Mercury is the only antidote to constitutional syphilis, and syphilis is always constitutional. For mercury we possess no substitute. Iron and bitter tonics, and all agents which promote nutrition, should be given in connection with the mercury, and large doses of quinia are often demanded; cod-liver oil, syrup. hypophosphites, syrup. ferri iod., and the extract of malt, are valuable remedies in the advanced stages.

In the treatment of tertiary syphilis, iodide of potassium possesses great palliative, if not curative influence, and without it it is impossible in many cases to control the more advanced and serious manifestations of the disease. It should be given largely diluted, and from a drachm to one ounce or more in the twenty-four hours is often required.

The best form of mercury for internal administration, in my judgment, is corrosive sublimate in solution. The best method of administering mercury is the moist mercurial vapor bath. The baths remove the symptoms of the disease with greater certainty, with more rapidity, relapses are less frequent, and the risk of producing the ill effects of mercury under this treatment is *nil.* Mercurial inunction is the most satisfactory method in infantile syphilis, though the bichloride acts well in these cases. Whatever form of mercury or method of administration

be adopted, the treatment should be prolonged uninterruptedly for some weeks or months after all signs of the disease have disappeared; and the mercurial treatment should be followed by a more or less prolonged course of iodide of potassium.

Prognosis.—An eminent German syphilologist is said to have declared that "not only is syphilis never eradicated from the system, but that the ghosts of pock-infected inhabitants of this world will suffer from the dread affection in the land of shadows." And there is a widely prevalent popular belief that syphilis is never entirely cured, and not a few physicians entertain this opinion.

My belief is that syphilis is one of the positively curable diseases, and I know of no malady the symptoms of which yield more kindly and certainly to proper treatment. Indeed, I believe that bad treatment and exaggeration of statement are largely responsible for the fearful reputation this disease has acquired for violence, malignity, and obstinacy. At the same time I must admit that in extremely rare instances, cases may be encountered which defy all treatment.

Prognosis is most favorable in children, and the younger the better are the chances.

Next to children women are most satisfactorily treated.

Young men stand next in point of curability; the older the patient is the less is the likelihood of permanent cure.

How we may know when our patients are cured of syphilis is a question impossible to be satisfactorily answered in the present state of our knowledge. I consent to patients marrying after twelve months of freedom from syphilitic manifestations, if they have previously undergone a thorough course of mercury and potash. At the same time I warn them that the only proof of cure is immunity from the symptoms, and that it is possible that, either in himself, his wife, or his offspring syphilis may crop out. But if the disease returns it almost always yields speedily to treatment; and if the wife or child get it they, as a rule, quickly recover.

I hope I may not be understood as advising syphilitics to marry. It would be safer and far better for the race if all syphilitics, consumptives, rheumatics, epileptics, and all others not indisputably sound, could be prohibited the privilege of procreation. But since such people will marry, we should give them all comfort possible within the bounds of truth.

INFANTILE THERAPEUTICS.

BY J. A. LARRABEE, M. D., OF LOUISVILLE, KY.

Nourishment of Infants.

Artificial feeding and "infants' food" are subjects so closely allied to infantile therapeutics that I offer no apology for their introduction here. The important duties of the accoucheur are scarcely ended before he is consulted as to what the child shall eat, and seldom will his remonstrances prevent its getting teas, cordials, and the like. During the early months and years of childhood attention to diet forms the principal part of practice in infantile diseases. The only proper food is that with which nature provides the mother, and where there exists no satisfactory reason to withhold it that alone should be given. Says Dr. Stoll: "Every woman who can bear a child can nurse it, at least for a season." It would be well if these words were heard by every mother in the land.

There are, it is true, certain conditions of both the mother and the milk which cause us to seek for some other nourishment for the child, but they are very few; and were we to try as hard to correct them as we do to find suitable artificial nourishment, such instances would be greatly decreased. Even the infant suffering from inherited syphilis may often be safely nursed by its mother, as I have frequently demonstrated in practice. The procedure is attended by no risk as regards the mother, and may be made a valuable means of treating both mother and child. A few years ago it was difficult to obtain, in this city at least, other artificial nourishment for infants than that obtained from cows and goats; now the number of artificial foods is almost appalling, and I am informed that the demand is steadily increasing, and the speculation is said to be profitable in a commercial point of view. Is it true that other influences than those of incapacity on the

part of the mother to nurse are brought to bear in the matter? Has Fashion dared even here to assert her claim?

I am almost tempted to say that next to the crime of fœtal murder, should be ranked the artificial feeding of infants, when it is possible for the mother to nurse her offspring. The former multiplies sickly and broken-down women; the latter is an immense factor in infantile mortality.

In order that cow's milk shall be a proper substitute for mother's milk it is necessary to add to its sweetness and lessen the amount of casein. For this purpose cane sugar will not do. Lactine or sugar of milk should be used, and the condensed milk ("Borden's") is at once the most convenient and acceptable substitute. To obviate the second difficulty it is necessary to make use of something which will separate the casein and act mechanically to prevent the formation of cheesy masses so often seen in the ejections and dejections of bottle-fed infants. For this purpose I have used with great satisfaction the "granum," prepared from gluten of wheat. A small quantity of the "imperial granum" intimately mixed throughout the milk prevents this too frequent cause of infantile wasting.

WATER.

As a therapeutic agent water of different temperatures plays a large part in infantile treatment. The cold bath for reduction of temperature is still insisted upon by many as applicable to febrile conditions. With few exceptions I believe it proves injurious rather than beneficial. The shock it produces, unless designed to arouse the nerve centers in asphyxia and similar conditions, or in coma, and the liability to produce internal congestion, are certainly worthy of consideration. For a short time the temperature is lessened, but it speedily returns, if not to exceed the former standard. As a means of keeping the head cool in diseases of the brain, and lessening the cerebral symptoms of ordinary fevers, no means is so effectual as the rubber coil, by which the heated water is constantly replaced by the cold, and all wetting of the pillow or person of the patient is avoided. The cap or coil is placed under the occiput and allowed to cover a portion of the head.

Medicated baths are not sufficiently employed as therapeutic measures in childhood.

In rachitis, scrofula, and other debilitating cachexiæ, astringent baths ought to be daily employed. Artificial sea-water may be easily prepared. A few grains of the bichloride of mercury added to the warm bath, with inunction of a small quantity of mercurial ointment, is at once the most pleasant and effectual mode of curing infantile syphilis.

The cerebral symptoms in the bronchitis and pneumonia of children are often relieved by warm and stimulating pediluvia given during the acute stage of the disease.

Calomel.

The mercurials occupy, as is now generally conceded, a most prominent place in diseases of children. The quantity required to produce the necessary effects, however, has been found to be much less than that formerly used.

Digestive Troubles.

The number of diseases which have their origin and continuance in a fault of digestion is so large as to constitute a majority of cases in the hands of the practitioner. Most of the chronic diseases are of this class. In some the symptoms are plainly attributable to stomach digestion, and the patient is declared a dyspeptic. Far more frequently, however, the indigestion is in the want of assimilation and ultimate digestion in the tissues. Of such character are the wasting diseases of childhood, in which, besides the atrophy, there is no organic disease. An eliminative diagnosis fails to point to a single organ diseased, and yet the patient sufferer is bound from month to month, until the effects of the mal-nutrition culminate in tubercle or he sinks from inanition. Inordinate appetites and longings are common, and occasionally remarkable recoveries follow some simple change of diet.

Malt.

It now seems that the benefit which for a long time has been accorded to malt liquors can be attained without alcoholic fermentation, thus in many cases accomplishing the good without the baneful effects of a stimulant. It appears to me that the "Improved Extract of Malt," manufactured by the Trommer Malt Company, has proven

that the real tonic properties depend upon its not undergoing fermentation. I have given these preparations to over three hundred patients during the past year, including private and clinical practice, selecting such as I deemed suited to the wants of the several cases, and I have yet to see a single case in which benefit has not accrued from its use. It may be said that the medicines contained in some of the preparations should have the credit, but I have been careful to use such preparation in cases where the medicinal agents therein contained have before been given with little or no advantage.

In tuberculosis and scrofulosis I have found malt to improve the nutrition and arrest the progress of the disease, acting in this way similarly to cod-liver oil, save that its effects are seen to be more decided and it agrees better with the stomach, a matter of no small importance in advanced cases.

In the continued cough of pertussis, where, after the acute stage has subsided, the patient has prolonged spells of coughing, I have found the plain malt to exercise a most marked effect. Children not infrequently continue to cough like hooping-cough for a year or more after having had the disease. In all such cases the cough is kept up by the bronchial glands enlarged in the acute stage; and such cases, if left alone, are fit subjects for early consumption. Malt extract is well adapted to this stage of convalescence.

In convalescence from the ordinary fevers, and especially remittent, ferrated or plain malt, with citrate of iron and quinia, is *par excellence* the treatment.

It is unnecessary that I should attempt to enumerate the diseases in which malt has proven beneficial. It appears to strike at the root of mal-assimilation. An explanation of the various conditions which are or may be expected to be relieved by extract of malt may possibly be found in the various stages in which digestion is arrested, and the power of this digestant to carry this process to its ultimatum in the tissues. A closer study of ultimate digestion is necessary, however, before we can give the rationale of the efficacy of this simple medicine or food.

I have not had sufficient experience with the use of malt upon the rheumatic diathesis of childhood to draw any positive conclusions concerning it, but I am quite confident that by carrying starch through

its changes to a rapid end in combustion malt is well calculated to accomplish good. The liability, therefore, to remain as lactic acid will be greatly lessened. In six cases it was of decided benefit in securing an immunity from the hitherto frequent attacks of rheumatism, one of which had suffered eight attacks of acute rheumatism in five years and had extensive cardiac lesion.

Bitter Tonics.

Previous to the introduction of the alkaloids of bark into general practice the practitioner enumerated in his list of remedies many drugs possessed of less anti-periodic properties. Since that time quinine has gradually supplanted the simple vegetable bitters, until at the present time a large number of these valuable drugs have been almost entirely excluded from practice. The fact that alkaloid principles do not contain all the valuable properties of the substances from which they are derived, and are less likely to agree with the stomach, is sufficient reason that we should not discard such substances in diseases of children.

Infusion of columbo is very valuable in chronic vomiting as well as in convalescence from cholera infantum and diarrhea. It affords the best vehicle for the soluble citrate of iron, and, modified to suit the condition of the patient, such a combination is most valuable.

Astringents.

Among the vegetable astringents crane's-bill and logwood are most reliable and I believe best adapted to infantile practice. When astringents are used as diuretics, as in dropsy after scarlatina, it is better to use the proximate principle (tannic acid) in large doses. If it has failed to yield the same good results in the practice of others, I am inclined to attribute such failure to the smallness of the dose employed, rather than to any incorrect therapeutic application.

Emetics.

The indication for this class in childhood is greater than in adult practice. In capillary bronchitis and pertussis the dangers which are avoided and the quiet sleep which follows vomiting are of so great advantage that an emetic can not well be dispensed with. For this

purpose, as well as in all cases where emesis is designed to act otherwise than simply to expel the contents of the stomach, the wine of ipecac is the best preparation. As an irritant emetic, when the nerve centers are obtunded by narcosis or disease, sulphate of zinc is certainly the most reliable. It is to be hoped that tartar emetic has yielded to the law of Sydenham, and is never administered in child practice.

QUININE.

The universal prevalence of malaria throughout the South and West renders it not only expedient, but absolutely essential that we should make use of quinine at a very early age of childhood. Nor is this all. It is necessary frequently to administer quinine to the mother during her pregnancy for the preservation of the fœtus. I have lately observed several cases of pigmentation in infants who have died in a few weeks after birth, the mothers having suffered greatly with malaria while *enceinte*. Dr. Wright, in a report upon this "rare disease of infants," does not find the same connection as to cause and effect.

The *post mortem* of these cases is extremely interesting, and I now present a microscopic section of pigment kidney taken from one of my cases. The history of all of them may be expressed in one. In a period varying from four days to two weeks after birth the child begins to assume a peculiar color. At the time when the normal ecchymotic color-change is completed in healthy infants these begin to fade. The child refuses the breast, and the mouth is seen to be filled with aphthous looking sores. The urine, which is scant and frequently suppressed, stains the napkins brown and finally black. The sclerotic is not icteroid. Masses resembling coffee grounds are found escaping from the urethra, which is often entirely blocked by them. The ureters, bladder, and pelvis of the kidney contain them. They resemble blood at first, and have an unctious feel. The microscope fails, however, to show that it is blood; and though when the specimen was in its moist condition I had little hesitancy in pronouncing it such, several microscopists who examined it were unable to denominate it. The examination made by Prof. Hough of specimens in Dr. Wright's cases showed melanosis, or a substance so nearly resembling pigment that Prof. H. denominated it melanoidine. Prof. Marvin, who

has kindly prepared the sections shown under the microscope, is of the same opinion.

The fevers of early childhood are almost always attended or accompanied with gastro-intestinal irritation. It is especially so with the remittent fever of childhood.

The sulphate of quinia is a powerful irritant when applied to inflamed or denuded structures. It is therefore not infrequently rejected at once by the stomach, and a tolerance is not established by persistent repetition of the dose. Under these conditions the general excitement and suffering of the patient is increased. The same applies in even greater force to the sulphates of the congeneric alkaloids of bark. Cinchona seldom fails to produce vomiting. Under these conditions and in all cases of malarial disease in childhood the muriate is the most acceptable to the stomach as well as to the rectum. The introduction of quinia by inunction in young children has proven entirely successful in my hands. An inunction should be made after the morning bath.

The fact that pertussis has been successfully treated by quinia throws, it seems, no new light on either the pathology or etiology of the disease. The explanation of the lessened number of paroxysms appears to be due rather to the occupancy of the nerve centers by quinine to the exclusion of impressions transmitted to them by the pneumogastric nerve.

Considering the condition of the stomach and the taste and properties of quinia, the mode of its administration becomes a question of no small importance in treating children. Various means to render quinia tasteless have been devised, the best of which is probably the aromatic elixir of liquorice, so well known in pharmacy, and valued to disguise acrid and bitter taste. Tannin renders quinine quite tasteless and almost useless. For several years I have used the muriate in solution, and find that it agrees well with the stomach, and the certainty of its absorption renders large doses unnecessary. The tincture of quinia and the orange wine of the British Pharmacopœia are more elegant preparations.

The power of quinia to lessen temperature in fever admits of very little doubt. The question for the practitioner to decide before administering it for the reduction of temperature in non-malarial cases

is whether the advantage gained is sufficient to compensate for the cerebral disturbance and congestion produced. In enteric typhus quinia does more harm than good.

Cardiac Stimulants.

At the very head of this class stands digitalis. As a recent writer has justly observed, "no subject at the present time affords a better theme for medical satire than digitalis." I have myself little doubt that lives have been lost which might have been saved, and many more prolonged in usefulness, but for the now seemingly groundless fear which for almost a century has clung about the "cumulative" properties of this drug. Happily the fear has given place to more enlightened views as to its action, and the use of this invaluable medicine has now become almost universal among practitioners.

In organic disease of the heart, which is no longer to be considered a rare disease of childhood, being an almost constant attendant upon acute rheumatism of children, the prognosis as to compensatory relief under its use is certainly more favorable than in the same lesions in adult life. Instances of spontaneous cure of well-defined cardiac lesions are now and then recorded during the growth of the child to mature life. It is difficult, however, to understand how a truly organic lesion can be thus relieved simply by growth of an organ without a greater degree of hypertrophy. Dilatation is more frequent in cardiac lesion of the child than the adult. In mitral regurgitancy the bruit is increased by the digitalis, but the cough and asthmatic dyspnœa are relieved. The infusion of digitalis often affords great relief in various forms of dropsical effusions; yet it is, properly speaking, no more a diuretic than tannic acid, which, as we know, also increases the flow of urine in certain instances. A failure or paucity of the urine occurring while digitalis is being administered should be regarded as a sign of danger. I have only once noticed the blueness of the sclerotica described by some writers as a symptom toxical.

I have not found it necessary to give large doses in cardiac diseases of children, but it has been necessary to continue it for a long time. I gave it in one case for a year with but a few short intervals; in three others it was given consecutively for over six months, resulting in relief of every symptom except the bruit itself. I have at no time

observed any of the cumulative action of the drug, and it very rarely disagreed with the stomach. Cinnamon water appears to be a good corrigent for the nausea which digitalis may produce.

Belladonna.—Belladonna stimulates the heart indirectly by its paralytic effect upon the inhibitory nerve centers. Irregularity of the heart's action not infrequently has its origin in the brain rather than in the heart. Severe and prolonged mental application may thus often disturb the rythmical contraction of this organ by a stimulation of the inhibitory centers. As a stimulant to the capillary circulation belladonna is exactly suited to a relaxed condition of the skin, as well as to the more complex diseases of the spinal cord. Children tolerate the drug beyond the age ratio followed for other medicines.

Cardiac Sedatives.

The indication for this class of medicines in the inflammatory and febrile conditions of childhood is more positive than in adult practice. Such conditions are often of a sthenic type, and most of the febrile conditions are of an irritative character; the heart's action is greatly accelerated, and its force is also increased at the expense of the muscular power. In these conditions the most valuable agent is aconite, and the most reliable preparation is the tincture of the root. Its action as a local sedative also, when applied to any part of the mucous tract, is a great advantage where the stomach is irritable and medicines can not be retained. The smallness of the dose—one fourth of a drop being sufficient for an infant—and its tastelessness when properly diluted, are points of great importance. Veratrum viride can not, I think, be compared with it in value in childhood; although it is considered to be a safer agent, the nausea and purging induced renders it unfit for many cases. It can not, I think, be doubted that the introduction of these two agents has done more to do away with blood-letting than any change in the type of the disease.

Spinal Sedatives.

Conium.—As an agent affecting the circulation in the brain and spinal cord, and as a paralyzant of voluntary muscles by its effect upon the afferent spinal nerves, conium has not yet attained the high place in general practice which it deserves. Perhaps the two circum-

stances which have led to this are, first, that in diseases requiring the use of conium, as in spinal irritation, congestion, meningitis, etc., the medicine is seldom employed in sufficient dose; second, there is very little of the drug which is reliable. Conium should be administered as digitalis; *i. e.* for its effects alone, without reference to quantity.

Dr. Harley has declared that conium is to the corpora striata, the smaller nerve centers, and the entire motor tract "what opium is to the brain." Since I have been less careful in regard to the dose I have had better results from the use of conium. Some years ago I made extensive use of extract of conium in cerebro spinal meningitis, and with marked benefit. At present the only preparation which is at all reliable is the fluid extract.

Salicylic Acid

Is among the most important of the recent additions to the materia medica. As a remedial agent it has met with almost universal favor. Not only has it sustained the claim of a powerful antiseptic, but its field of usefulness has been greatly enlarged. The effect of this acid in controlling the pain and course of acute rheumatism is truly wonderful. Much of its value no doubt depends upon the sedation exerted by it upon the circulation, as a consequence of which pain is lessened and temperature reduced. I have found the pain of migraine and other neuralgias yield very promptly to its use. As a local application to the nasal and pharyngeal mucous membrane in diphtheria and other diseases it is unexcelled.

Its caustic nature demands care in its use, especially in young children, and the following formula makes an excellent and safe mode for its administration:

℞ Acidi salicylici..... ʒjss;
Ammoniæ citratis..... ʒss ad ʒj;
Syrupi cinnamoni..... ℥jss;
Aquæ cinnamoni..... ℥ss.

M. Ft. solut. Teaspoonful every second hour for a child of five years suffering with rheumatism.

The putrescent character of the stools in children suffering with summer diarrheas is at once changed by salicylic acid, and a corresponding improvement in the condition of the little patient noticed. Its power over living germs renders it at once invaluable when con-

tagion is feared. Prof. Abelin, of Stockholm, says that "in children doses large enough to bring down temperature acted as a poison," and cites a case in which twelve grains caused death. In such doses it seemed to be a corrosive poison. In smaller quantities it lowers temperature without exerting any beneficial effect upon the course and symptoms of the disease.

JABORANDI.

Much has been expected from this Brazilian pilocarpus, and its physiological action claims for it a place in our selection for childhood. Most of the experiments have been performed with an infusion of the drug in substance, and in this way when given in five- or ten-grain doses it has uniformly produced its characteristic effect. Now that we have its active or alkaloid principle (pilocarpin), it is probable that we we may eliminate some of the hitherto ascribed properties as being common to the piperacea. Its action is upon the glandular system. Therefore as a therapeutic agent it must be limited to the restoration of the function of the skin, salivary glands, and the mammæ, or to establish vicarious action by them.

Its use in acute febrile excitement or during the eruptive stages of the exanthemata is opposed to the principles of sound therapeutics, and I am not surprised that disappointment has attended its administration where the vitality of the skin is impaired or where perspiration and transpiration are checked by reason of high temperature. By the use of stimulating diuretics we do harm in certain diseases of the kidneys, no less than when we employ stimulating diaphoretics to restore the function of the skin which is already suppressed by over stimulation. The indication is to lessen the force of the heart and bring down the temperature. If this be done by proper means, the perspiratory glands will resume their functions without the aid of jaborandi. The same applies to the salivary glands during the stage of eruptive excitement in scarlatina, and a failure of this drug under the conditions should not be made to weigh against its usefulness.

Pilocarpin in one twelfth of a grain equals five and a half of the drug in effect. It is an oily substance like conia, but not possessed of odor. It has little effect upon the heart and upon temperature, and the sense of debility after its use in health must be

no argument against its use when the system is oppressed by dropsy (ascites, or anasarca), for this same sense of weakness will be turned to strength by the use of this agent. By far the most numerous cases of dropsy in childhood are post-scarlatinal, and the testimony of those who have used jaborandi is in its favor. In certain dropsical effusions it offers the best and most prompt relief. The propriety of its use in cardiac dropsy, except for temporary relief, may well be doubted. It is best in dropsy depending upon disease of kidney, as vicarious action is the only hope of even temporary relief. In cardiac dropsy it must not be made to supplant digitalis. Such an employment would be empiricism opposed to science.

Ergot.

Ergot produces vaso-motor spasm, and consequently increased arterial tension, through its action upon the nerve centers within the cranium. This fact, if it be conceded, gives to the drug a therapeutic importance, in treatment of diseases affecting the circulation, unequaled by any other medicine, unless it be determined that ustilago is more powerful in the same direction. I have made extensive use of ergot based upon the above theory, and so far with the best results. The plea of medical skeptics that those results might have taken place without ergot, and the familiar taunt "*post hoc propter hoc*," will not account for the excellent effects in desperate cases obtained by practitioners and recorded almost daily in the journals.

The importance of ergot as a therapeutic agent in congestions of the brain and spinal cord in childhood, in catarrhal and mucous diseases, etc., renders it especially proper to include it in the medicine of childhood.

CRITICISM OF DR. ELY McCLELLAN'S ARTICLE ON CHOLERA.

BY DR. W. TALBOT OWEN, OF LOUISVILLE, KY.

With due deference to Dr. Ely McClellan, Surgeon, United States Army, I would offer a criticism upon his article entitled "A Note of Warning—Lessons to be Learned from the Cholera Facts of the Past Year, and from Recent Cholera Literature," as published in the December number, 1876, of the Richmond and Louisville Medical Journal. There are two errors in the article. These errors are radical. I purpose to analyze the article, in a brief way, with special reference to its errors, and if I can not show them to be radical in their fallacy, to abandon all claim to a comprehension of medical philosophy. It is as necessary for the medical student to illustrate medical science as it is for the student of any other science or art; for it partakes of both science and art. Further, it is imperative that the medical philosopher should *demonstrate* all propositions given for the guidance of those placed over the lives of the people; for the physician, as much as any other, has the greatest charge, and wo be to him who flippantly tampers with that charge, or who, from a crude digest, gives that which misleads the community.

I have stated that there are two fallacies in the article. They are positive and negative. The positive error is that cholera is portable; that it is carried from one place to another, from one person to another person. The negative error consists in the denial that malaria is a cause of cholera.

I wish to be perfectly fair in the last statement and do Dr. McClellan no injustice. While he does not positively assert that malaria is never a factor, he affects to ridicule the thought that it has any essential part in the etiology of cholera. This I consider a radical error, as I purpose showing in the discussion; and in bringing logical

tests for an analysis of the question, should there be a destruction of his premisses, the same application of logical tests will be enforced in the elucidation of the synthesis which I shall set forth; to wit, Malaria is essential to the production of cholera; cholera is non-portable.

There are but two modes of attainment to science. These modes are embraced under the head of logic. Induction is the term given by the logicians to the process. The first is exact, conclusive; the second is only inconclusive, so far as perfect exactness is contemplated. I do not deem it necessary to state that while using both modes, and more especially the latter, I shall freely give all of its force to the whole school of contagionists, infectionists, and "portabilists," *et id omne genus*, of which school Dr. McC. is for the nonce the exponent.

"He discovers who demonstrates a truth." This axiom lies at the basis of all science. It is the concrete thought of the greatest modern apostle of Baconian philosophy. Its elaboration consists in the *complete* aggregation of every fact entering into the composition or structure of any study, practice, discussion, science, art, or what not. The complete elucidation of these facts is the essential feature of science metaphysically considered, while their arrangement in due order for an introduction to the mind of the learner is the art.

I. The Proposition: Malaria is Essential to the Production of Cholera.

I ask the indulgence of the Society in the discussion that I may digress for a short time from a strict polemic order, that I may present another phase of controversy as clearly as possible. In this I am compelled to review the basis of malaria; *i. e.* to place malaria as the prime agent in the production of all forms of fever, from simple intermittent, remittent, up to and including yellow fever. All cases of intermittent and remittent fever are proven to be found and found only where the three elements, vegetable decomposition, solar temperature of definite degree, and moisture, are in conjunction. There has never been a case that could not be explained by the conjuncture and the attributes of the conjuncture, which is termed malaria. If cholera can not be equally well explained as these manifestations of fever are explained, I will abandon the field of medical philosophy at once.

I wish to emphasize the declaration that malaria is not the sole cause of cholera. I had the honor assigned to me for the preparation of a paper to be read before the College of Physicians and Surgeons of Louisville, in which paper I demonstrated the fact of another agent in the production of cholera beside malaria, and the article received the unanimous indorsement of the College and vote for its publication. I am on record as to my proof of the fact that malaria is not the sole cause of cholera. I go farther, and say that I do not think I know any writer or author or professor who unqualifiedly commits himself to the doctrine that malaria is the sole cause of cholera.

A remark as to an attribute of cholera. Take a native of the ex-extreme north—Canada, Maine, or Vermont—who in full years of manhood, having never left his native place, nor heard of nor saw a case of intermittent fever, afflicted with pulmonary consumption, visits a southern clime to pass the winter. He spends two months of the lowest winter temperature, where the mercury barely descends to 60° F.; for instance, Tampa Bay. He returns home in due time, and up on that mountain top—his home for forty or fifty years—in one, two, three, or twelve months, or even a longer time after his return, for the first time in that community a case of intermittent fever is declared to be found in this person who had spent the winter in the South. This attribute is latency.

Taking it for granted that no one will controvert the law that in the production of intermittent fever there are the three elements named, called the conjuncture, or malaria, as the cause, we must concede to the logician that which is an inevitable induction; viz., there can not be a case of this fever without the conjuncture, as demonstrated by the fact that the absence of either of these elements gives immunity. This result of induction enforces the following logical statements: He, the logician, affirms that vegetable decomposition is the cause of malarial disease, in that its presence is essential, as its absence gives immunity from the disease; he affirms the same with the like logical truthfulness of solar temperature; and with equal force of logical truth he affirms the same of moisture. It seems to be a work of supererogation to elaborate this point, so well established is it in the mind of the profession; yet I deem it necessary to adhere close to the elements of this important subject, for therein lies the fruit of our study.

I take it as proven, therefore, that the three factors, vegetable decomposition, solar heat, and moisture, or their conjuncture, which is synonymous with malaria, are the cause of fever; and logically, either one of these factors is the cause. Now, I will show, in so far as investigation and reasoning can show, that by the same process of reasoning as to the *essentiality* of each element of the conjuncture in the production of malaria, this product called malaria is also essential to the production of cholera; that it is ever present.

1. The British government, in their great work of investigation completed and published in 1852, gave as the result of their work certain definite propositions: 1st. Malaria as the cause of intermittent and remittent fevers; yellow fever produced by the same cause, as demonstrated by Dr. Bone; also the plague; and the *sine-qua-non*ship of malaria as to cholera.

In all cases of cholera in the United States it was shown to be attended by malaria. In the report malaria was an "invariable adjunct." We arrive at the conclusion that it (malaria) was a cause of cholera. There is no escape from this conclusion, for, let it be remembered, that its absence gives immunity. I say malaria is a cause, an essential cause, not the sole cause; but with the same propriety that I showed that vegetable decomposition was the cause, or solar heat was the cause, or that moisture was the cause, that each of the three elements was essential to the production of malarial disease, by a parity of reasoning we affirm that malaria is the cause of cholera; that malaria is a *sine qua non* in the production of cholera.

The testimony of the report of the British Commission has indubitable evidence in that given by a witness in the city of Louisville, Kentucky, inserting the *prediction* of Dr. T. S. Bell, who had pursued the speculations of science to their last term, and illustrated them by observation and experiment. He stated that cholera could not appear before a certain time in Louisville: This prediction being based upon the knowledge that solar temperature, one of the factors in the production of malaria, could not be of sufficient degree before the time predicted; thus giving a perfect exemplification of the logical law as to cause, by taking this one element of the three as the important one, and again more conclusively, if possible, demonstrating the induction above stated. Hear what the Commission say of our

distinguished brother: "Dr. Bell predicted that no indigenous case of cholera could occur before May or June, *which prediction was fully verified.*" "The whole burden of Dr. Bell's testimony on this point is so clear and conclusive as to leave no room for doubt." Thus the prediction of Dr. Bell was literally fulfilled.

Henry Thomas Buckle, in his address before the Royal Institution, 19th of March, 1858, says: "The more complete a science is, the greater its power of prediction. Astronomy, for instance, is called the queen of the sciences, because it is the most advanced of all, and the astronomer, while he abandons all hope of controlling or altering the phenomena frequently knows what the phenomena will be years before they actually appear; the extent of his foreknowledge proving the accuracy of his science." I claim this, my first proof of my first affirmation to be a demonstration, as it is pronounced so by one of the most learned tribunals that ever met and determined a truth, a tribunal whose president was the celebrated Lord Shaftesbury. I repeat, "He discovers who demonstrates a truth."

2. *The Logical Induction from the Attributes of Malaria.*—Let me lay down the well-known law for the attainment of truth where it is barely outside of exact science, where you are met by theories and hypotheses, and your resort is in the realm of probability, where the probabilities are weighed, and those found to be heaviest are accepted as the best, to-wit: If the thing to be proved can be shown by another hypothesis to be as clear as by the one assumed, the proof is of no value. If the thing to be proved can be shown to be explained better by the assumed hypothesis than by any other, then the proof of the thing is probable. If the thing to be proved can be explained completely by the assumed hypothesis, and without it there is no explanation, then the truth of the explanation is irresistible. This process applied to the question is the second in proof of the first affirmation. I shall give the full benefit of this law to the advocates of portability when I come to the second affirmation of my argument.

3. *Thermometry.*—The revelations of the thermometer relative to human temperature show a state of things at once unique and exact. Lately it has loomed forth with great brilliancy and receives a place as an instrument for the elucidation of exact science. Arrows of truth had been shot forth sporadically, beginning with Magendie, then

formulated by Wunderlich a few years since, and still prosecuted by him in evoking distinct revelations, aided by his ardent disciple, Seguin. I feel justified in saying that to-day we have in these thermometrical observations the basis of an exact science so far as my first affirmation is considered.

During the cold stage of an intermittent, and in anticipation of that stage, the temperature of the patient is increased. Subjectively the body is cold, the patient is "freezing to death," he is often fatally cold, while at the same time the thermometer in the axilla, as with a pencil of celestial light, gives to you the anomaly of extreme heat, rising often to 105°–108° F. Here is a unique phenomenon. This is peculiar to malarial disease—a freezing subject, a burning object; a block of ice, a flaming fire—an anomaly in science; a grand exception to all hitherto discovered things; a marvel. Now, cholera is classed with the apyrexiæ. In all of its stages it was observed so early as in 1832, accompanied by an exalted temperature of the patient. It is found in the period of collapse. Seguin makes this statement: "Cholera is an apyretic disease; but in observing individual cases our judgment will stumble against unexpected and unexplainable pyrexiæ in the middle of a ruling algidity." Mark well the words, "unexpected and unexplainable pyrexiæ in the middle of a ruling algidity." How conclusive is this statement. I would rest the question here and claim for this, my third point, the full force of a demonstration. I challenge any one to produce a better, or more complete proof of the first affirmation than this which is given in the thermometrical test. Malaria is an essential factor, is a *sine qua non* in the production of cholera. I will recapitulate the heads of argument in proof of the first affirmation:

1. The Verdict of the British Commission.
2. The Induction from Logical Probability.
3. The Thermometrical Test.

II. The Portability of Cholera.

My second affirmation is that cholera is non-portable. Doctor McClellan says cholera is portable, and wishes to be understood, inferentially, that it is not contagious. I shall not carp at him for this inference. It is not his own, further than his attempts to cause

its acceptance makes it his. I can not find a scintilla of evidence from his own experience to give that proof which the scientific must have.

Portability! What is its definition? The state of being carried. Portable—that which may be carried. What is carried? Something—nothing. Contagious? No, not contagious! and something is carried. Specific? Yes, distinctly specific. No genus, but a species; what a monstrosity is here. Not contagious and yet something is carried to the person seized, an impalpable, imponderable, invisible contagious nonentity! a specific entity! These are the habiliments in which the portabilists clothe their phenomenon. Are not these the foot-prints of malaria and its attributes, and do not these impalpable, imponderable, and invisible agencies belong alone to malaria?

You can not inoculate a person with malaria, nor can you with cholera. Produce a single well-attested case of cholera induced by inoculation. You can not infect the clothing with malaria, nor can you with cholera, and produce the disease. Bring a single well-attested case of the disease, nay, more, bring a single case filling the ordinary line of features corresponding to a case of any one of the confessedly contagious or infectious diseases. None of the recognized laws governing contagious diseases is applicable to cholera, and plain, common sense claims from the advocates of portability and specificity something portable, something specific. No one claims for malaria the quality of portability as an entity to be carried, and I challenge any one to produce the evidence of a something or entity in cholera more than that we find in malaria, yet there are two distinct, absolutely distinct agencies: each one essential, each one a *sine qua non*, as shown when read by your critic before the College of Physicians and Surgeons in December, 1866. (Published July 20, 1867, in Medical and Surgical Reporter, Phila.)

Hallier, of Jena, the leading mycologist of continental Europe, says that a fungus which he calls urocystis, is the cause of cholera; that the spore is indigenous to India, and is found in the rice-plant; that cholera stools when placed on the soil of plants growing elsewhere, produce the same fungus; that the heat of northern Europe is not sufficient to develop it; that cold destroys it, and the fungus must

be imported. Rev. M. J. Berkeley, of England, the equal of Hallier as a fungologist, says, "We know nothing of the microscopic fungi of India."

Lionel Beale says "*it can not be regarded as a species.*" The dissimilarity of views expressed by these magnates in fungology and microscopy is fatal to the theory of portability.

Hallier finds it necessary in addition to high temperature that the fungus must have "nitrogenous and some hydro-carbonous nutriment."

Aitken says that, as demonstrator of anatomy in the University of Glasgow, "including the severe epidemic of cholera there in 1848–9, and during which time almost all the subjects for dissection had died of cholera, *not a single student* suffered from cholera."

It is confirmed "by the experience of those connected with the dissecting rooms in Edinburgh. These were supplied during the greater part of 1848–9, as they were in 1832 almost exclusively by cholera subjects, *and in neither year was there a single case of the disease among the students attending these rooms.*" Italics are mine. (Aitkin from Prof. Alison.)

The attempts made upon the lower animals to introduce the disease by the inoculation of the excreta, and as ingesta through the stomach, had partial success. Simon says the discharges (cholera stools) are *non-effective* when first discharged; others say they are equally effective at all times. Here is no concurrence in the very A, B, C, of medical etiology.

The experiments show that the characteristic cyst forms of cholera could not be produced without a temperature of at least 54° F. The isotheral curve limiting malaria is placed at 60°; so close as to be very suggestive.

I promised in my second argument of my first affirmation to give to the advocates of portability or contagion the full benefit of the law which I applied to the solution of my first proposition.

The assertion made by them is that there were cases of cholera so far removed from the habitats of malaria that there could not be found a single chance to trace attack to it; that persons were attacked immediately after coming in contact with those suffering from cholera; that in a community perfectly healthy before the introduction of cholera there were cases who had intercourse with cholera subjects, and those were the only cases in that community who were attacked.

My first affirmation was the fact that malaria is a cause of cholera. I showed that it was an essential factor—a *sine qua non.* My effort before the College of Physicians and Surgeons received the indorsement of that body in 1866 as to another agent, also a *sine qua non.*

Now, in the logical process of the law of probability, as I promised, we bring to bear upon these cases of supposed contagion, which term is used synonymously with portability, all of the potency of its recognized finality as a solution of the second affirmation.

1. Can you account for the cholera seizures as satisfactorily upon the hypothesis of contact alone, as you can by the hypothesis that they, the seized, had some time received malaria, and then first showed its latency? I will be generous for the sake of argument, and say they are equal.

2. Can you more satisfactorily account for the cholera seizures upon the known laws of malaria and its attribute, latency, than you can from known laws of contagion in all other diseases confessedly contagious or infectious? You can.

3. Can you *fully* account for the attacks of cholera by a knowledge of the manifestations of malaria and its attribute, latency, with a third agency, and without this knowledge there is no proof of the etiology of cholera? You can.

In view of the rigid enforcement of this logical process given in my first affirmation, there can be no escape from the conclusion that these attacks ascribed to contact, or through a portability of the disease are to be fully accounted for in malarial manifestations and the *tertium quid*, whatever that may be.

I leave the matter here; and beg leave to say that I am grieved and astonished that so high a functionary as Dr. McClellan, occupying the position of custodian of the health of the country to so great a degree as he has and does, should slip over this proud evidence of the grandeur of science in our noble profession, and his duty to sound the trumpet of danger to a confiding and comparatively defenceless people, in whose service he has been placed as a life-guard.

A PECULIAR CASE OF PERI-UTERINE CELLULITIS.

REPORTED BY J. HALE, M. D., OWENSBORO, KY.

In September, 1876, I was called by Dr. A. C. Haynes to see a negro girl sixteen years old, who had been attacked about the close of a menstrual period with a chill, followed by fever, and great pain in the back and hypogastric region, with difficult and painful micturition and defecation. She had been sick for a week, and the doctor had given her the usual remedies in such cases; but her symptoms had continued unabated up to the time I saw her, one week after the attack. At this time she was unable to micturate or defecate, had great pain in the hypogastric region, high fever, nausea, and vomiting, with almost constant vesical and rectal tenesmus.

On digital examination I found the cervix uteri about one inch above the meatus urinarius, pressing the urethra firmly against the os pubis. On passing my finger upward and backward toward the rectum I found the posterior *cul de sac* entirely effaced, and in its place a large projecting tumor, which extended down the posterior wall of the vagina to near the fourchette.

On passing my finger into the rectum I found the tumor extended backward to the sacrum, pressing the rectum against the sacrum with such force as to completely close its canal. The tumor was immovable, elastic to the touch, and without fluctuation. There was no evidence, either local or general, of suppuration having taken place.

The case being a formidable one, and having no hope of preventing extensive suppuration by the use of ordinary remedies, I determined, with the approbation of Dr. Haynes, to aspirate the tumor through the vagina. After emptying the bladder of urine I introduced the largest sized aspirator needle about one inch behind the vaginal attachment to the posterior surface of the cervix uteri, and drew off seven ounces of a pale, straw-colored serum, containing neither

blood nor pus. The serum continued to flow as long as the aspirator was worked, and I could have no doubt drawn off much more, but I thought it best to stop, and wait for the result of what I had done. Soon after the operation the patient expressed herself as feeling much better than she had since she was attacked.

We ordered her opium in sufficient doses to secure rest, and enjoined perfect quiet. On the next day she was very much improved in every respect. The fever had abated, the pain was comparatively slight, the tumor was greatly reduced in size, she could urinate and defecate without difficulty and with but little pain; her nausea and vomiting had ceased, etc.

We ordered vesication over the hypogastrium, to be followed by warm poultices, a continuance of the opium, etc.

She continued to improve rapidly from this time on, and was up in about ten days, and has been apparently well ever since.

This case was one of great interest to me, and I hope may be to other members of the profession, not because it presented any thing of peculiar interest in its symptoms or pathology, but because of the result of the treatment used.

The course pursued was new to me, and, so far as I was concerned, was an innovation. I have no knowledge of such a course ever having been advised or practiced by others; but the result was such that I would certainly resort to it again under similar circumstances.

Dr. T. G. Thomas, in his work on "Diseases of Women," reports a case of pelvic peritonitis sent to him by Prof. J. C. Hutchinson, of Brooklyn, in which a soft fluctuating pouch formed in the vagina, which became very painful, and he tapped it with an exploring needle, and drew off about an ounce of clear serum, much to the relief of the patient.

This is the only case of pelvic inflammation I have been able to find in which an operation had been made, except for the purpose of evacuating pus after suppuration had taken place.

Pelvic abscess is not a very uncommon affection in the female subject, and is certainly a very disagreeable and intractable one; and if any means can be devised by the use of which such a result in pelvic inflammations may be averted, we are certainly justified in resorting to them.

REPORT ON THE U. S. MARINE HOSPITAL SERVICE.

BY THOS. J. GRIFFITHS, M. D.,
Surgeon U. S. M. H. S.

At the twentieth annual session of the Kentucky State Medical Society I presented a paper on United States Marine Hospitals, and had the honor to be continued chairman of the same committee. In the paper presented at that time I merely gave a history of the Marine Hospital Service in general, referring particularly to the Hospital at Louisville. It is the design of the present paper to give a brief statement of the plan and working of the service, the amount of relief furnished seamen, and to show that its medical officers keep pace with the researches and the advancement of the science of medicine.

The organization of the service was never so perfect as at present. A greater amount of relief was furnished in 1875–6 than ever before in the same length of time. The average duration of patients in hospitals and the cost per diem has been greatly reduced. Never in the history of the service were hospital dues so closely collected, or the medical corps composed of officers so competent. All this is due to the untiring energy and perseverance of the present Supervising Surgeon-general.

Congress in December, 1874, passed "An act to promote economy and efficiency in the Marine Hospital Service," and regulations were established providing that all appointments to the service should be by competitive examination before a board of surgeons to be appointed by the Supervising Surgeon-general. Under these regulations medical officers are assigned to duty at such posts as is thought would promote the interests of the service, their term of office to continue during good behavior and efficiency. By these means only competent men can enter the service, and thus secure for the unfortunate seamen the

best of medical attention. Formerly appointments were made on political grounds, qualifications being almost completely ignored.

June 30, 1875, closed the seventy-seventh year of the existence of the service, and the fourth of its reorganization on the present basis. During this year relief was furnished at ninety-four sea and inland ports to 15,009 sick and disabled seamen. The total number of days of relief was 405,665. 12,939 of the men relieved were admitted to the various hospitals, while 2,070 men whose diseases or injuries were not sufficient to require hospital treatment were relieved by the surgeons on duty and were classed as "out patients."

The relief of sick and disabled seamen is not a work of charity, nor are the hospitals charitable institutions. Forty cents per month is deducted from the wages of each seaman while employed on board a merchant vessel of the United States. This tax is collected by the Surveyor or Collector of Customs at the ports at which said vessels are enrolled or registered. This fund is held in trust by the United States for the benefit of such seamen as may become sick or disabled while in service.

For thirty-three years prior to 1873 Congress was called upon to make an appropriation to supply a deficiency to care for the sick seamen. This deficiency averaged $124,713 per annum. Since 1873 no appropriation has been called for, the collections being sufficient to meet all demands; and under the admirable management of Dr. Woodworth it is not probable that any appropriation will be required.

The diseases most prevalent among seamen are syphilis, malarial fevers, and rheumatism, in the order named. The crews of sea-going vessels and those of inland steamers contribute much more to the diffusion and prevalence of syphilis than any other class of men in the world. Most of our outward-bound vessels are manned with men who appear physically sound, though a majority of them are suffering from venereal disease. These spread syphilis at foreign ports, and many of those who left home sound return affected with syphilis, and communicate the disease to the prostitutes of our seaboard cities. The same may be said of the crews of our river steamers and lake vessels. Seamen are notoriously improvident, spending most of their money in drink and prostitution, so that the diseased affect the unfortunate females they come in sexual contact with, and the well men become diseased.

Strenuous efforts are being made by the Supervising Surgeon-general and the subordinate officers of the Marine Hospital Service to obtain such legislation as will prevent the spread of disease through this source in this country; and as the service has to care for such diseased seamen, it is but right that the provisions of such enactments, if obtained, should be carried out by the medical officers of the Marine Hospital corps. It is suggested that all out-going seamen shall be examined before shipment, and all such as are diseased be rejected and sent to hospital for treatment; the seamen on board all vessels arriving from foreign ports to undergo an examination, and any found to have syphilis to be quarantined or confined in hospital until relieved.

Surgeon Bailhache (foot note; see Report on Syphilis and Chancroid in Supervising Surgeon-general's Report for 1875) proposes, in addition to this, to establish free dispensaries in all seaboard and inland towns for the treatment of syphilitic diseases.

If such legislation can be obtained and is faithfully carried out, as it would undoubtedly be, one of the greatest factors in the spread of syphilis in this country would be measurably or entirely abated. If small-pox, yellow fever, etc., can be quarantined against, why not syphilis, which is a disease more to be dreaded and results more disastrously to the human family.

I wish to call the attention of the Society to the reports of the Supervising Surgeon-general to the honorable Secretary of the Treasury, on account of the valuable statistical information contained therein, as well as the papers contributed by the officers of the corps. Epidemics which have appeared at courts where medical officers are stationed are fully discussed; historical facts pertaining thereto, with maps showing extent and location, are also given. The prevalence of certain diseases in particular localities, and the ratio of cases as compared with other sections of the United States, their causations and methods of prevention, are illustrated. These papers being the result of close study in particular diseases, are valuable contributions to medical literature.

PHYSIOLOGICAL THERAPEUTICS IN FEVER.

BY JOHN L. COOK, M. D., OF HENDERSON, KY.

As preliminary to a proper understanding of my subject I will refer to the evolution of animal heat in the human system during health. This process is essentially combustion of the tissues, subject to certain modifications owing to the presence of vital structures; and even in the changes which take place in nutrition, heat is produced.

In an article on fever, read before the McDowell Medical Society December 7, 1875, and published in the March number of the Virginia Medical Monthly, 1876, I advocated the use of quinine, ergot, belladonna, and the cold bath to reduce febrile heat. I did so upon the ground that the *elevation of temperature in fevers hinged upon dilatation of the capillaries*, and the most rational means which could be suggested for its reduction would be such as would cause contraction of these vessels. Cold baths and quinine have been extensively used to abate fever, and in conjunction with them, in the paper to which reference has been made, I proposed, in addition, ergot and belladonna for precisely the same purpose, namely, to lessen the capacity of the capillaries. So far as the principle is concerned, I had not seen it suggested; but in April, the month following the publication of my paper, I saw an extract, as quoted from The Clinic, that the same views were held by Heyem as to the use of ergot as an anti-pyretic in enteric fever.

In the American Practitioner for January, 1877, I have read with pleasure an extract taken from the Edinburgh Medical Journal for December, 1876, on the use of belladonna in enteric fever; and on looking up the literature of the question I find an excellent paper on the use of belladonna in the treatment of typhoid fever by Dr. B. Kelly, of Dublin.* Dr. Harley, the author of the article quoted from

* Medical Times and Gazette, Feb. 5, 1870, p. 146.

the Practitioner, offers the same explanation I did as to the contraction of the capillaries, though his report is made in December and mine in March, 1876; but I had read my article a year previous, in December, 1875. But Dr. Kelly, as far back as 1870, reports remarkable success with the belladonna treatment of typhoid fever, however, with a different explanation as to its mode of action. The good results reached he ascribed to the counter-action of the typhoid poison by the belladonna, when the pulse and temperature fell to the normal level. While Dr. Harley and I agree that ergot is an anti-pyretic in typhoid fever, I go further, and say that it is anti-pyretic, because it prevents excessive oxidation of the tissues of the body, as will hereafter be more fully explained.

There is this difference, however, inasmuch as I recommended their employment in all essential fevers, and not typhoid fever alone; and this I did because of their property to produce contraction of the capillaries. It seems to me that all fevers are in fact hyper-oxidation of the organism, which destruction leads to an increased quantity of blood in the small vessels contiguous to the tissues, and therefore distension of their walls. Hence, in view of these facts, medicines and measures known to produce contraction of the capillaries, not in special parts, but the whole system, would most assuredly meet the indication. How account for the improper elevation of temperature which is always present in essential fevers? Such abnormal manifestations can result only from the disturbances of the forces of nutrition, assimilation, and disintegration, for when these functions are performed properly the body is maintained at 98° Fahr. Each contagious fever has its own specific poison, and this poison is required to produce the same disease in another person; and no specific disease has a dozen causes to produce like phenomena. But a difference in the virulence of the materies morbi, whether animal or vegetable, associated with different conditions of patients may show itself in the type of the disease. The inception of poisons into the system establishes changes of various kinds, but still each disease has its own peculiar characteristics, its own history, and its own pathology.

A small quantity of the contagia of scarlet fever, of smallpox, of measles have the inherent power of multiplying themselves in systems which are not protected from their influence, and an immunity from second

attacks seem to depend upon the destruction of particular elements in the blood upon which the poisons feed. But this is not so, however, with what is commonly known as malaria, for it is incapable of converting other materials into any thing like itself. To this class belong intermittent, remittent, and yellow fevers; so if one do not imbibe sufficient malaria to cause him to be taken with the disease at once, he will likely not have it at all; but as this poison may remain latent in the system for many weeks, he is liable to be affected as long as the system is subject to its baleful influence. No matter what the nature of these poisons may be, just as soon as they begin to create disturbances, chilly sensations announce the fact, and in which, with the perversion of the nutritive process and perhaps chemical reactions, fever occurs. Then, too, the respiration will be more or less increased in frequency; so more oxygen enters the lungs to reach its final destination, the tissues; and now, what becomes of it? Does it pass out of the system in the same state that it entered? Not at all. But it comes in the shape of carbonic acid, etc.; for the destruction of the tissues liberates the carbon where it unites with the oxygen, to become an excretory product. All the time the heart has been laboring vigorously to accomplish this end. The action of this organ is increased in order to drive the blood to the remotest parts to keep up the supply of oxygen that morbid action demands. And to demonstrate that there is an intimate connection between the amount of oxygen consumed in fevers and the range of temperature, I will refer to the fact, admitted by all medical men, that the heat of the body as a rule is increased one degree Fahr. for every ten beats of the heart above the normal standard. So taking these data as a guide in the treatment of fevers, it assuredly becomes sound; it certainly becomes rational; and more than all, it becomes highly successful; for induction in all sciences, no less so in medicine, favors great advances.

With regard to the treatment of fevers, our main object is to carry out the principles stated in the caption of this article; but while this is true it should be no less practical in other matters.

As fevers have certain definite causes, these should be removed or destroyed in all cases if possible; but this can not be done in an epidemic, as the whole air appears to be impregnated with the general cause, whatever it may be. A great variety of opinions is held by

the profession with regard to what constitutes endemic and epidemic diseases.

First. Epidemics travel every where, and their course is not obstructed by rivers, mountains, or lakes.

Second. Any diseases which originate and are confined to special localities are not epidemic.

Third. Diseases arrested by frosts are not epidemic, but endemic.

These brief facts are given, and they seem pretty effectually to settle the question as to the causation of yellow fever, and therefore its treatment. Generally yellow fever is confined to hot climates; and as insurance companies know its habitation they make wise provision against those holding policies in which they are interested from going South during the hot season. Moreover, as it is indigenous to special localities which have free communication with the world, without importing the disease, that does away with its contagious theory. For contagious maladies do disseminate in proportion to the intercourse between the sick and the well; and so may go to the ends of the earth.

And from these facts it can be truthfully stated that a contagious disease never becomes epidemic; for no one is so rash and absurd as to hold that the whole atmosphere could be as thoroughly contaminated as the room of a sick patient is with contagious effluvia; which state of affairs would be necessary to produce an epidemic of any contagious disorder. An epidemic breaks out, extends far and wide without regard to hygienic measures, though such measures may mitigate the severity of suffering in those afflicted. But hygienic measures, if thorough, will stamp out endemic disorders; notably for example, intermittent, remittent, and yellow fevers. While through all ages, till of modern date, malaria has scourged the world, quinine has mostly robbed it of its terrors. If you have any malarial disease under the sun, quinine in sufficient doses will cure it in a vast majority of the cases. Though anti-periodic, its influence does not stop here. If you have a high fever induced from some other cause aside from malaria, being literally burned up with oxygen, it will contract the capillaries, cool the fever, afford comfort, and bring relief. Beside its many other qualities, among which may be mentioned its use in preventing the migration of the colorless corpuscles in general debility, it is a fine

prophylactic medicine to prevent those exposed to malarial causes from being attacked. Lastly, as a means in diagnosis it stands pre-eminent in proving whether malaria be present or not; for in many instances the grave symptoms so speedily yield to quinine as to settle the identity of the complaint beyond question. Pertaining to this point, I hope I will be excused for referring to the report on yellow fever as it occurred in Savannah, Ga., 1876, by Dr. Octavius N. White, of New York City.*

He commenced the treatment of the disease by giving the patient at once in the beginning twenty grains each of calomel, sup. carb. soda, and sulphate of quinine, with remarkably happy results. Four hours after, ten grains of quinine were administered; which doses were repeated every two hours during the first stage to keep down the fever. Dr. White says, "The treatment, when instituted early, invariably tended to shorten the duration of the first stage, and very materially modify the severity, if it did not prevent the succeeding stages." The key to his success was the use of quinine, which not only diminished the fever, but effectually destroyed the poison on which the fever depended. Although Dr. White gives a very ingenious explanation as to the *three factors* in producing yellow fever at Savannah, his own account of the rainfall there, with the solar temperature, filthy surroundings, the wind from the right direction, were sufficient causes to breed the most deadly malaria, and decimate forty towns of the same size.

It has been my design to call attention to therapeutic remedies to lower the temperature in fever, but as I desired to make this article practical, I could not altogether ignore the causes of fever, their nature as far as known, and the means at our command for their destruction or, what is better, their prevention. In some fevers the medicine which destroys the cause also acts in another capacity, viz., as a sedative; and thus becomes a two-edged sword for good when wielded properly. This is eminently true of all malarial diseases—the quinine counteracting both the poison and the fever. Hence, touching this point briefly, I will refer to the probability of there being antidotes to the contagia of some of the fevers; and if such ever become known it will be the manifest duty of physicians to neutralize the poisons as far as practicable, while using means to reduce the excessive

*The Medical Record, Vol. 12, No. 2, p. 29.

temperature, as one or both combined disorganizes the glandular system, vitiates the blood, and kills the patients.

To proceed with the practice of controlling fever in the manner already set forth, *cold water baths* will now claim my attention. In the first place, cold water directly abstracts heat from the body of a fever patient, as it would from any thing else with a high temperature. Secondly, they act like quinine in one respect; that is, they contract the capillaries, prevent excessive flow of blood to the tissues, and so lessen fever by checking combustion. And in accordance with the foregoing views, ergot, to supplement quinine and cold water baths in the treatment of fevers, should receive hearty approval. The same is true with regard to belladonna, and as they act pretty much alike, it is unnecessary to dwell at full length on the value of each particular medicine.

So far, in dealing with this important question, one practical feature of the treatment has been omitted. The position assumed of over-oxidation of all the tissues in fever would require at our hands that all means be adopted which will diminish calorification. Hitherto I have referred to that portion of the circulation over which the vaso-motor nerves preside. But at present I desire to speak of the general circulation. As the respiratory function is to furnish oxygen to the body, and as there is a corresponding relation existing between the action of the heart and respirations so that when they are augmented in fever, a superabundant amount of oxygen gains access to the lungs, and is carried forward wherever blood circulates. Now, in order to cut off what is fuel to the flame, or, in other words, too much oxygen to the frame, resort must be had to arterial sedatives to subdue the action of the heart and lessen the number of respiratory acts per minute. And this is the explanation as to the mode in which arterial sedatives diminish fever. I rely on the tincture of veratrum viride more than any drug of its class. When administered in full and repeated doses it comes as near doing what the physician expects as any other drug in the materia medica. Four or five drops of the tincture every hour or two will soon impress the system with its influence, an influence which will always redound to the good of the patient in well-selected cases. Therefore it becomes very obvious that the derangement of two important factors in fever, the general and local circulations, should be

righted as soon as possible by arterial and local sedatives, if I may use the term with respect to the latter adjective. So then veratrum and aconite play an important part with quinine, cold baths, ergot, and belladonna in the treatment of essential fevers. They can be given in various combinations, but in all instances in full doses to be sure of having the desired effect. However, it may not be necessary to use the full combination in every case. Two or three of the medicines can be used in conjunction at one time, and then a change may be made with profit. Five drops of the tincture of veratrum, ten grains of quinine, half a dram of fluid ext. ergot, perhaps five drops of belladonna every hour will in all probability abate more or less any fever, to which the cold bath would assist; for on the one hand oxygen, one of the elements of combustion, is partially withheld from the system, and on the other hand its distribution to the tissues is partly controlled.

It has not been my aim to enter into a discussion of the different stages of fever, but more to treat of the causes of febrile heat and the physiological therapeutics best suited for its relief. I am aware this paper has many short-comings and imperfections; views are inculcated which many medical men of eminent ability disbelieve; but with due deference to them I have said what I believe, in my own blunt way. I close by saying I take no authority but facts and truths.

DEAFNESS AND SOME OF ITS CAUSES, ETC.

BY M. F. COOMES, M. D., OF LOUISVILLE, KY.

Deafness is generally due to one of two conditions: first, complete or partial destruction or absence of some part of the auditory apparatus; second, impairment of the functions of some of the structures composing the auditory apparatus.

Complete or partial destruction of any portion of the organ of hearing must necessarily occur after birth or at time of delivery, and is either the result of disease or injury. The parts which are most liable to destruction from disease or injury are those of the middle ear; viz., ossicula audita and membranæ tympani. The congenital defects are usually found in the internal ear, and consist in the absence of the cochlea and semicircular canals or their incomplete development. About fifty or sixty per cent of all the cases of deaf-mutism are congenital; the remainder are acquired.

As a rule, there can be nothing done to improve hearing in cases of congenital deafness. The observations of the more learned investigators of the present day show that nearly all the causes of acquired deaf-mutism are secondary, and that at least three fourths of all the cases of this class are the result of chronic naso-pharyngeal catarrh or chronic tonsillitis. The question now arises as to the manner in which either of the above-mentioned diseases may cause deafness, since one or both of them may exist indefinitely without producing any symptom of disease of the ear or deafness. A view of the anatomical relations of the naso-pharyngeal space to adjacent parts will be sufficient to fully explain the matter.

The same mucous membrane that lines the nasal and pharyngeal cavities extends up the Eustachian tube to the cavity of the tympanum, lining its walls and covering the structures contained therein.

There is no breach in any portion of this mucous surface, and but little difference in structure, save in thickness and form of epithelial cells. Hence the liability of any inflammation that may occur in the naso-pharyngeal cavities extending to the middle ear by continuity of surface. Thus we have such inflammations acting as primary causes, just in the same way as do the exanthemata. Inflammations of the middle ear resulting from chronic naso-pharyngeal catarrh, chronic tonsillitis, and the exanthemata are in reality secondary; and furthermore, it is a rare thing for any form of idiopathic disease to have its origin within the tympanic cavity, but, on the contrary, disease finds its way to the tympanum through the medium of the adjacent structures.

What has been stated in regard to diseases extending to the drum cavity from contiguous structures may be confirmed by any intelligent observer, and it may be safe to predict that deaf-mutism will decrease just in proportion as the mass of the profession recognize the importance of prompt treatment of the causes which produce it.

The exanthemata as a class should be ranked as causes in the production of acquired deafness in the following order: scarlatina first, rubeola second, and variola third. The accompanying table shows the relative frequency with which the sequelæ of these diseases produce deaf-mutism. Of 2,468 cases of acquired deaf-mutism 459 were the result of the exanthemata. Of this number 328 were due to scarlatina, 96 to rubeola, and 35 to variola. Thus, according to the statistics of Wilde and Toynbee, we have a fraction more than one fifth of all the cases of deaf-mutism resulting from the exanthems.

As before stated, the exanthemata are primary causes producing inflammation in the naso-pharyngeal cavities, which may, and as a rule does, extend to the middle ear while the patient is still suffering with the primary disease; but it is not infrequently the fact that the membrane lining the naso-pharyngeal space remains in an inflamed condition for a considerable length of time without creating any disturbance in the ear, until by sudden atmospheric changes or some unknown cause the inflammation assumes a more active character and extends up the Eustachian tube to the tympanic cavity. Such changes may occur weeks after the acute attack; and in consequence of the possibility of an inflammatory process existing in the naso-pharyngeal

space, of a latent character, for a considerable time after the exanthem has disappeared, it is of the utmost importance that the practitioner should keep a vigilant watch over this class of patients, and promptly combat any trouble that may arise, and never cease his efforts until all evidences of any thing of an inflammatory nature have disappeared. Acute inflammations of the ear are to be treated upon the same general principles as similar inflammations occurring in other cavities of the body, the great aim being to arrest the process and preserve the functions. It is important to recognize the cause of the agonizing pain which occurs in connection with a case of acute otitis media, as its recognition is sufficient to indicate the proper means for prompt relief. Furthermore, it may be well to mention the fact that all cases of catarrhal inflammation of the naso-pharyngeal space occurring in subjects whose constitutions are not tainted by syphilis are curable. Among the common causes of deafness, syphilis at this time is undoubtedly one of the most prolific. Syphilitic disease of the ear is met with most frequently in infants and young children who have inherited disease. In such cases the patient presents an anæmic appearance, and is a very fair type of what is generally termed a strumous or scrofulous subject, these being terms which are frequently used as a modest way of expressing the presence of inherited syphilis.

Syphilitic disease of the ear is very insidious in its manifestations, and usually first shows itself in the form of otitis media, which is seemingly chronic from its commencement, as perforation of the membrana tympani occurs in these cases with almost no pain or disturbance of any kind, the presence of the serous discharge being the first evidence. Such cases are more difficult to manage than ordinary catarrhal inflammations of the drum cavity, in consequence of the disease being due to a constitutional defect. Mr. Hutchinson is of the opinion that all cases which he inspected of aural disease occurring in the course of inherited syphilis are "due either to disease of the nerve itself or to some change in the non-accessible parts of the auditory apparatus." I am fully persuaded that this learned gentleman was misled in his observations, and have no doubt that he has long since convinced himself that aural disease occurring in connection with inherited syphilis shows itself much more frequently in the tympanic cavity than in the labyrinth.

When syphilis invades the ear of the adult, it most usually makes its way along the course of the Eustachian tube from the throat. Occasionally it extends from the cranial cavity into the labyrinth, occurring in connection with syphilitic disease of the brain, trunk of the auditory nerve, or meatus auditorius internus. Syphilitic disease of the labyrinth fortunately is very rare, as it is fatal in most or quite all cases. Roosa says that he never saw a case recover.

The prognosis of any form of disease of the labyrinth is always unfavorable. Diseases of the labyrinth are characterized by peculiar symptoms; viz., deafness almost absolute, loss of the power of co-ordination, vertigo, nausea, and vomiting. These are the symptoms of acute inflammatory diseases of the labyrinth. Deafness and loss of equilibrium are about the only symptoms of chronic disease of the internal ear. The only positive evidence of disease of the auditory nerve is absolute deafness. Among some of the rare causes of deafness fracture of the petrous portion of the temporal bone is one that should not be overlooked.

"Hemorrhage or effusion of serum into the membranous labyrinth may occur without any well-defined cause. In atheromatous degeneration of other blood-vessels we may also suppose that such hemorrhage sometimes occurs." The only really practical value to be attached to this latter class of affections, so far as any local treatment may be indicated, is to establish the importance of non-intervention.

In regard to the primary and secondary catarrhs or benign inflammations, local treatment may be relied upon to arrest pathological processes, and, fortunately, where the patients are seen early, to restore impaired function.

In conclusion, I may say that two thirds of the deafness we see might have been prevented, and one tenth can yet be cured.

PHYSIOLOGICAL AND PATHOLOGICAL CHANGES IN THE BLOOD CORPUSCLES.

BY FRANK C. WILSON, M. D., OF LOUISVILLE, KY.

Since the time of Leeuwenhoek in 1673, when he discovered the red corpuscular elements in the blood, and a century later, when Wm. Hewson first described the less abundant white globules, much time and labor have been spent by physiologists in the study of their structure, origin, function, and destination.

It may not be unprofitable to spend a short time in the study of the various changes, through which they pass from the moment they are launched forth into the never-ceasing life-giving stream, until they disappear by disintegration or escape from the vessels.

The red corpuscles appear very early in fœtal life, being seen in the chicken as early as the twenty-seventh hour. There are several theories as to the way in which the corpuscles and vessels are formed. Foster and Balfour believe that in the vascular and pellucid areas a number of mesoblastic cells send out processes, which, uniting form a protoplasmic network containing nuclei, which multiply rapidly by division and increase in size, becoming elongated, and many of them containing large oval nucleoli. The central nuclei acquire a red color, and the protoplasm in which they were imbedded becoming liquefied, they float about in a system of vessels thus formed. The heart itself is at first but a solid mass of cells, the central ones becoming liquefied, the nuclei forming blood corpuscles, just as occurs in the pellucid and vascular areas, the outer layers of cells becoming transformed into the muscular walls of the organ.

The red corpuscle, as seen in human blood from an adult, is a bi-concave circular disc measuring about $\frac{1}{3200}$ part of an inch in its largest diameter. In early fœtal life they are larger in size, frequently oval

in shape, and in many may be seen a distinct nucleus. As to the intimate structure of the corpuscle, it is a disputed point whether it consists of a distinct cell-wall inclosing fluid or semi-fluid contents, or is made up of a sort of spongy tissue which is springy and elastic and capable of absorbing and exhaling liquids and gases.

It has not been many years since they were regarded as distinct animate beings, endowed with life and merely floating in the plasma, from which they derived their nourishment and support. Each individual corpuscle is no doubt endowed with vitality, just as any of the living cells of the body, and is capable of appropriating nourishment from the fluid in which it floats, and thus repairing its own tissue waste, but not in the sense of a distinct animal organism. A much more difficult question to solve is the organ of the red corpuscles, which must be continually formed to replace those worn out by natural decay, destroyed by disease, or lost by hemorrhage. There are no longer mesoblastic nucleated cells, which, by their liquefaction, may liberate the nuclei to form a new supply of corpuscles; and yet, after the loss of a large amount of blood, as in cases of post partum hemorrhage, we see the system rally, and in a few weeks supply the deficiency by new corpuscles. Dr. Bennett believes that they are the product of a change in the white corpuscles in their passage through certain glandular organs, as the liver or spleen. The white, in their turn, being taken up by the passage of the current of lymph through the substance of the lymphatic glands. These abound in large spherical cells resembling white corpuscles, with free nuclei and granular matter. Some of these necessarily mingle with the current of lymph and chyle, and are discharged with it into the subclavian vein, and so pass to the right side of the heart. As many as three different forms of white corpuscles are distinguished in the blood, one of which is supposed by some to take part in the formation of the red.

The corpuscles no doubt serve as carriers of oxygen, absorbed in the lung, and destined to be distributed throughout the entire system. An old theory ascribed to them also the generation of the fibrine as a product of the disintegration of the membranous envelope.

The destruction of the corpuscle is supposed by some to be accomplished chiefly in the spleen, where we find a pulpy mass, resembling closely the debris of broken-down red blood corpuscles

The corpuscles may be changed in shape, size; or numbers, as the effect of disease or of remedial agents. The change in color, which we notice in venous blood when it becomes arterial, may be due not only to the effect of the oxygen upon the hæmoglobine, but in some measure to the change in the contour, substances, the absorption of which distends the corpuscle, causing the blood to assume a darker color. If, however, the blood be treated with thick syrupy substances, or in other words, with any thing which will cause an outward current from the contents of the corpuscle, it will collapse to some extent and the color will be correspondingly brighter.

Scherer thinks that some change in color may be owing to the thickening or attenuation due to the alteration in form; that when the capsule becomes thinner by expansion, the pigment must shine through more in its natural or dark-red color, and that when the corpuscles are diminished, their capsules must be thickened or thrown into folds, and thereby, to some degree, conceal the true color of the hæmoglobine. Nasse, Scherer, Harless, and Henle all agree that oxygen renders the central depression of the blood-disc more distinct, as if the central depression were increased or drawn inward, and on the other hand that carbonic acid has the opposite effect, the corpuscles becoming more opaque in the center, and the outer edge becomes broader.

The effect of disease and of remedial agents and poisons upon the corpuscles remains to be considered next.

The number of corpuscles in a cubic centimeter of blood has been very ingeniously estimated by the hématimètre of Heyem and Nachet to be about five millions. In anæmia the number may be decreased to three or even two millions. In the early stages of cholera the loss of serum causes an apparent relative increase of the corpuscular elements. Later in the disease, should the patient survive, the lost serum is replaced by water absorbed; and though the relative number may be unchanged, yet the loss of the salts will be felt in the constitution of the corpuscles and the consequent impairment of their vigor.

Dr. E. L. Keys, of New York, has made some interesting observations concerning the effect of syphilis upon the number of corpuscles. His conclusion is that "syphilis diminishes the number of red corpuscles below the healthy standard." He also experimented with the remedies generally used in the treatment of the disease, and found

that "mercury, in excess, decreases the red cells;" that "mercury, in small doses, continued for a short or long period in syphilis, alone or with iodide of potassium, increases the number of red corpuscles in the blood and maintains a high standard in the same; that mercury, in small does, is a tonic (for a time at least) to individuals in fair health not syphilitic, increasing the number of red blood corpuscles."

In typhus fever the blood corpuscles seem to be deteriorated, many of them becoming disintegrated, poisoning the system, and giving rise to the petchial spots so characteristic of the disease.

Ancel describes the blood of tuberclosis as "deficient in the number and defective in the vital properties of its corpuscles."

The inhalation of anæsthetics, as ether and chloroform, is always at the expense of the vitality of the corpuscles, the size being decreased and many of them distorted and irregular in shape.

Dr. R. U. Piper, of Chicago, has lately described the effect of cold upon the size of the blood corpuscles, producing a very marked diminution in their diameter.

The behavior of the blood-discs under the influence of electricity is most remarkable. As described by Dr. Klein, they become first crenated, then rosette shaped, then mulberry shaped, and finally, by the acumination of the projections, horse-chestnut shaped. Later, the processes are withdrawn, the corpuscles becoming round, and at last pale.

Dr. Wm. Addison, in 1859, described the remarkable effects produced by adding sherry wine to the blood as follows: "At first there is no disturbance in the liquor sanguinis, but afterward the fluid is seen to contain multitudes of molecular particles which are supposed to have come out of the corpuscles. The corpuscles not only throw out these molecules, but also long threads or tails are projected by them into the fluid, sometimes as many as five from one corpuscle. They all terminate in a knob at the extremity, and wave about in a most extraordinary manner."

The white corpuscles are easily seen to exhibit amæboid movements, processes shooting out here and there like feelers, and the individual corpuscles changing their places almost like animate beings. They may even be said to feed upon solid particles, for when brought in contact with finely-divided fatty substances or coloring matters there is first observed the adherence of the particle to the surface or

to one of the processes, followed by a retraction of the same into its substance. The cells not only take in foreign bodies, but they also have the power of discharging them, and can be even seen to give up to contiguous cells the solid bodies previously ingested.

Prof. Marvin, in examining a short time since the bloody fluid from a malignant ovarian tumor, noticed many of red blood discs exhibiting active amæboid movements.

Very little indeed is known of the pathological changes in the blood corpuscles, and yet there remains open to us a wide field for future investigation. It may be that future research will develop the fact that each pathological condition so stamps itself upon the cell elements of the blood as to be clearly recognizable by the experienced microscopist.

OCCIPITO-POSTERIOR POSITIONS.

BY R. F. LOGAN, M. D., OF SHELBYVILLE, KY.

Susan Hall, a woman of color, mother of eight children, was confined February 17, 1877. The labor began at four o'clock P. M. and terminated at eight P. M. Duration of first stage three hours and a half, second stage thirty minutes. The secundines followed a few minutes afterward, as usual. I first saw her about six o'clock, and found the head presenting in the third position—occiput to the right sacro-iliac synchondrosis. I watched the case with an unusual degree of interest, expecting to feel the occiput rotate into the second position, and be expelled under the pubic arch; but as labor progressed the occiput rotated backward into the hollow of the sacrum, in which position the labor was completed with no delay, and apparently with but little greater difficulty than attends occipito-anterior positions.

I take occasion, in reporting this case, to record my experience in occipito-posterior positions of the head, since, from all the evidence I can gather, my experience in such cases must be exceptional.

Within the last four years I have met with four cases of occipito-posterior position, three of which were expelled from the vulva with the occiput backward. One of these cases was delivered with the forceps. In one of the four cases the head underwent rotation upon its transverse axis, and was converted into a face presentation, delivery being accomplished without delay or difficulty.

I have also met with two cases of presentation of the head in the second position. Admitting that these two cases were originally in the third position, the fact still remains that I have witnessed three deliveries of occipito-posterior position, the head rotating into the hollow of the sacrum and being delivered in this position. Two of these were in the fourth position, and one—the one herein reported—

occupied the third position. The one that was converted into a face presentation was also originally in the fourth position, making in all three cases of fourth position and only one of the third; or, supposing that the two cases of the second position were originally in the third, I have then met with six cases of occipito-posterior presentations, only two of which were converted into occipito-anterior positions. Three were delivered in the original occipito-posterior position, and one was converted into a face presentation. As I said, this experience is exceptional, and for this reason I record it.

With the exception of the first, which, according to Leishman, occurs in nearly 70 per cent of all cranial presentations, the relative frequency of the positions of the head is a question upon which there is still a very great difference of opinion among obstetricians. Naegele, for example, gives 70 per cent of first position, 29 of third, and excludes the other positions altogether. Naegele, the younger, gives statistics almost the same as those of his father. Simpson decreases the per cent of third positions to 22.68, and gives .29 of second and .58 of fourth positions. Dubois gives 25.66 per cent of third, 2.87 of second, and .62 of fourth. Murphy gives 16.18 of second, 16.18 of third, and 4.42 of fourth. Swayne 9.79 of second, 1.04 of third, and 2.8 of the fourth. In the experience, therefore, of the two Naegeles, Simpson, and Dubois the third position preponderates very largely over the second or fourth. Murphy's experience gives an equal number of the second and third, while Swayne, unlike the others, gives 9 per cent of the second to 1 of the third, and gave a preponderance of the fourth position over the third of two to one. The late Prof. Miller, of Louisville, agrees with Swayne in believing that in point of frequency the second comes after the first, and that the fourth is more frequent than the third.

My experience, too limited, I confess, to be of much, if any, value to the profession, agrees with that of Swayne and Miller in placing the fourth position before the third in point of frequency and in making the third the least frequent of all the cranial presentations; but, unlike theirs, or the recorded experience of any one else, so far as I am acquainted with the literature of the subject, my experience gives a greater relative frequency to the fourth than the second position, and makes the fourth position come after the first, then the second, and the third the last in frequency.

Until quite recently it was the custom of some writers, whose positions gave them great authority in the profession, to answer all testimony opposed to their experience by simply declaring that such testimony was untrustworthy, as coming from men whose want of experience disqualified them from being competent witnesses. I trust that this time has passed, and that the tyranny of authority may no longer impede the progress of scientific truth. Let each medical man give his experience for what it is worth, and even should his opinion be opposed to that of the immortal Naegele himself, let him express it, and let its value be determined by his reputation and standing in his profession. If those of greater influence attempt to stifle his opinion by declaring him out of order for want of experience, then let this begging of the question go for what it is worth. Holding to this view, I yet think that men should not make too much haste to form or express opinions or to record experience which further inquiry may prove to be fallacious.

It will be observed that I am not taking into account any experience previous to the last four years, although I have been a physician nearly seventeen years, during which time I have met with my share of obstetric practice. I hope, therefore, that I may be pardoned for expressing the belief that ordinarily I am able to make a correct diagnosis of the position of the head, difficult as I know this to be in many cases.

As exceptional as my experience has been in regard to the relative frequency of the positions in cranial presentations, it is still more so in the fact that, so far as I am able to judge, every case of occipito-posterior position that I have met with, except one, has been delivered by the rotation of the occiput into the hollow of the sacrum, instead of under the pubic arch, as usually occurs, according to the observations of others. Possibly I have met with cases of occipito-posterior positions which were not recognized until the action of the uterus had rotated them into occipito-anterior positions; and yet, if this be the case, I have certainly met with an undue proportion of the former positions; nor can I see, this being true, how it is that I have seen so few cases of the second position. I have seen but two cases of the second position. Supposing that these were originally in the third position, these, with the one herein reported, would make only three

of occipito-posterior presentations with the occiput to the right side.* All other cases of occipito-posterior positions must, therefore, have been upon the left side, undergoing rotation into the first position. This would increase the preponderance of the fourth position over the second and third to an extent yet unheard of, and doubtless incredible. I must believe, therefore, that my diagnosis has been correct, and can explain my experience only by admitting that it is rare and perhaps unique in this particular.

Some writers, Leishman and Playfair particularly, admit the possibility of a conversion of an occipito-posterior position into a face presentation, but neither of them appears to have met with such a case. It is evident that such a change can take place only when the fœtal head is unusually small or the pelvis uncommonly capacious, since in the rotation upon its transverse axis the occipito-mental diameter of the head must revolve within the cavity of the pelvis. The cavity being on an average of 5 inches and the occipito-mental diameter being 5½ inches, it follows that such a change of positions is impossible when the head and pelvis bear their ordinary relations to each other. Cases such as the one herein mentioned are very rare, but one can see how it might occur when all the circumstances combine to favor it. A capacious pelvis, a small head occupying an occipito-posterior position, these are the conditions. Uterine pains force the head down to the floor of the pelvis, with the head still backward. The floor of the pelvis now becomes the point of greatest resistance; the forehead is pressed down under the arch of the pubis. Now the force of the uterine pains will act upon that point where there is the least resistance. If this be the floor of the pelvis, as is commonly the case in occipito-posterior deliveries, the force acts upon the occiput and expels it over the perineum. But should the head be small, so that the diameter of the cavity of the pelvis is equal to or greater than the occipito-mental diameter of the head, and should the forehead be narrow, the floor of the pelvis may become a point of greater resistance than the pubic arch. Under such conditions the force is transferred from the occiput to the sinciput, the head undergoes rotation in its transverse diameter into a face presentation, with

* Since writing the above I have met with a case of third position in which the head rotated into the second position, and was expelled under the arch of the pubis.

chin under the symphisis pubis, and the child is delivered by the ordinary mechanism of face presentations. Such were the conditions and such the mechanism of the case I met with about two years ago.

Two of the cases of occipito-posterior positions herein mentioned occurred among negro women; and this leads me to offer a few remarks upon a question which, though not bearing directly upon the subject before us, is of interest to those who practice obstetrics in sections where a large proportion of the inhabitants are negroes.

It has been maintained by some writers, notably by Tyler Smith, that there is a very great difference between the head of a white fœtus and a black one. An exaggerated picture exhibiting this difference adorns the pages of Prof. Smith's classic work on "Obstetrics." A considerable part of my obstetric practice has been among negro women. I have looked for the difference mentioned by Tyler Smith and others, but I must avow my candid belief that none such are to be found in this section of Kentucky. That such differences may exist in the original home of the negro, Africa, can not be denied; but I am quite sure that no such distinction between the races can be found in the more civilized sections of America.

It has also been maintained by nearly all writers on the subject, and generally received as true, that labor is attended with less delay, pain, or difficulty in the negro than in the white race. This too is contrary to my experience.

It has been asserted by the very ablest writers, and, so far as I know, the assertion remains undisputed, that preternatural presentations and all forms of dystocia are not only less frequent in the negro than in the white race, but that they are extremely rare among the negroes. From this opinion I must also dissent.

I do not know what proportion of my obstetric practice has been among negroes, but certainly not more than one third, and yet at least one half of the cases of tedious labor from various causes has been among the negro women. Of the two cases of shoulder presentations both have been in negro women. Of four cases of face presentations two have been negresses; three cases of breech presentations have been with negroes. The only case of death from heart-clot that I ever saw was a negro woman in confinement.

According to my experience the proportion of rigidity of the os,

of irregular uterine action, of inertia of the womb, and of all forms of dystocia is just as great among negroes as in the white race. In general terms, I can truthfully say that in my experience there are just as many cases of delayed, painful, and difficult labors in the one race as in the other, and I am confident that the mortality from childbirth in this community is far greater among the negroes than among white women. This, however, grows out of the circumstances of their lives. Being an improvident race, they are unable to take care of their sick, are seldom prepared for an emergency, and many die who if properly provided for and taken care of would recover.

As I believe that, other things being equal, there is no difference in the shape or size of the fœtal head of the two races at birth, so I am likewise satisfied, from quite a number of personal observations, that, other things being equal, there is no difference in the size, shape, or capacity of the pelvis in the negro and the white woman.

Admitting it to be true, which has by no means been proved, that the skull of a fœtal negro, born in the interior of Africa, resembles the sugar-loaf head of a monkey; and admitting it to be true, which has merely been asserted, that the negress in her savage state has a pelvis more closely resembling that of the lower animals, and that in them the delays, pains, perils, and difficulties of labor are less than among the white races of Europe and America, no reasonable or scientific deduction can be made until the white race has been placed under similar circumstances and subjected to the same laws of development and growth.

All efforts, therefore, which have been made to establish the non-unity of the human family upon any differences that may have been observed between the pelves or the fœtal skulls of races placed under circumstances entirely different rest upon data clearly insufficient, and can not stand the test of scientific scrutiny.

GLAUCOMA CAUSED BY ANTERIOR SYNECHIA.

REPORTED BY WILLIAM B. MEANY, M. D., OF LOUISVILLE, KY.

On the 12th day of January, 1877, Mrs. H. P., thirty-five years old, consulted me for the relief of a gradually increasing defect of vision, which she said had been troublesome for the past two years.

The pupils in both eyes were displaced downward, the inferior pupillary margins being adherent to the corneo-scleral juncture. She had always worn glasses, and some experimental surgeon, anxious to extend his ophthalmic experience, had very awkwardly performed iridodesis, an operation that never was approved by the regular profession.

Prior to the performance of the operation she had no other trouble except the optical defect (hypermetropia). Since that time she had gradual increase of pain in the eyes, after use, with increasing contraction in the field of vision. She often saw parts of objects only, and had occasional attacks of severe headache.

Examination revealed atrophic spots in the choroid of variable size and shape throughout the whole of the left fundus, with dark-colored striæ floating in the vitreous. The disc was very deeply excavated, with the remains of an old blood clot lying upon the superior temporal margin. Tension, + 2; vision, perception of light only. Right eye tension, + 1; vision, can see fingers at eight inches. Disc cupped, retinal veins greatly engorged, and very tortuous. Peripheral choroidal atrophy in spots.

Chloroform was administered by my friend, Professor Dudley S. Reynolds, and I removed about one sixth of the irides through an inter-scleral section. A two-grain solution of atropia was instilled, and the eyes closed with the cold, wet, compressive bandage.

On the 14th I visited the patient; found her suffering intense pain

in the brows, quick pulse, dry tongue, no appetite, bowels constipated. I gave ten grains each of calomel and chlorate of potash, which operated freely within four hours. At bedtime she took twenty grains of quinine.

On the 15th, at 8:30 A.M., I was gratified to find the patient quite comfortable. I removed the bandage, and found the wounds well united and the eyes apparently free from irritation. She remained in-doors until the 20th, when she could count fingers with the left eye, and with the right she was able to see as well as she remembered ever to have done before. She now sews and performs all the ordinary duties of her household.

This case is of great importance in a clinical sense as tending to show both the dangers of anterior synechia and the therapeutic value of iridectomy.

I lay special stress upon the inter-scleral section and the amount of iris removed, one sixth. It is almost marvelous that many experienced practitioners make a small inter-corneal section, thereby greatly limiting the therapeutic effect.

Anterior synechia is specially liable to develop tension in the eyes, which, regardless of its pathology, should lead to the most rigid examination of the state of refraction and the symmetry of the peripheral portions of the field of vision. If the refraction changes from time to time, with the accommodation fully paralyzed with atropia, or the field of vision is contracted at any point, tension being present, iridectomy should be performed at once. The physical signs of glaucoma should alone guide the surgeon.

IRIDO-CYCLITIS.

REPORTED BY D. S. REYNOLDS., M. D., OF LOUISVILLE, KY.

This is the disease which generally produces blindness in the subjects of inherited syphilis, and which occasionally results from mechanical injuries, such as penetrating wounds and contusions of the globe at the corneo-sclerotic junction. It is the same form of disease usually known as sympathetic ophthalmia, being developed from injuries to corresponding portions of the fellow-eye. For example, a wound being received in the right, resulting in the production of irido-cyclitis, will by direct continuity of nervous structure develop great irritation in the corresponding portions of the left eye. Since the outer half of the right and the inner half of the left retinæ are furnished from the right optic tract, and the inner half of the right and outer half of the left are furnished from the left optic tract, the cranial nerves being given off in pairs from a common origin, and the nutritive and other functions of the uveal tract being controlled by branches from the third, fourth, and fifth pairs, in conjunction with ganglionic filaments derived from the cavernous plexus, it necessarily follows that an injury done to the ciliary body on the temporal side of the right eye will irritate the ciliary body upon the temporal side of the left; and if this injury done to the right eye should result in inflammatory changes, extending as far back as the ora serrata, the field of vision would be limited at this point by the morbid processes radiated from the ciliary body to the retina; and so soon as the retina at this point exhibits loss or impairment of function, a corresponding portion of the retinal substance on the nasal side of the left eye will be found to exhibit evidences of corresponding, so-called, sympathetic irritation, as shown by the limitation in the field of vision at that point.

It is well known that irido-cyclitis runs a precisely similar course

when due to inherited syphilis. The acquired syphilitic affections of the eye very rarely, if ever, assuming primarily this type. No matter what treatment be employed, the disease shows a tendency to frequent relapses until iridectomy, so as to include a section of the iris quite out to its peripheral margin has been properly performed, and the patient's general health brought fully up to the requirements of an ordinary recuperative power. The inflammatory changes observed in the uveal tract in syphilitic subjects always partake of the plastic type, and there is almost uniformly abundant evidence of the plastic character of the inflammation manifest in the corneal opacity, due to the interstitial deposit of lymph in the substantia propria, and the presence of neoplasms in the corneal epithelium.

Mr. Jonathan Hutchinson has immortalized himself by showing the unmistakable evidences of inherited syphilis in certain deformities of the teeth; and his labors in establishing the equally unmistakable evidences of the syphilitic origin of idiopathic irido-cyclitis have placed the profession and the world under everlasting obligation.

It is the opinion of your humble reporter that much disastrous damage to vision may be prevented by the timely performance of iridectomy in syphilitic diseases of the uvea. This form of ophthalmia is identical with what is ordinarily known as periodic ophthalmia in horses. The animal thus afflicted is said to be "moon-eyed." Examination of a large number of horses suffering with this disease leaves no doubt in my mind that it might be arrested by the same means that gives relief to the human subject. Whether the disease in horses proceeds from syphilitic infection or some other cause it is difficult to determine, but the identity of this disease in both horses and men does not admit of reasonable doubt.

To illustrate the importance of a careful clinical study of the remote effects of inherited syphilis, I beg to introduce a brief notice of some cases occurring in my own practice.

In November, 1872, Willie H., aged nine years, was brought to me by a medical friend. The child had been suffering for two months with great intolerance of light. The right cornea was of a milky tint; the epithelial surface presenting the appearance of ground glass. There was but little conjunctival engorgement. The sclerotica about one line and a half posteriorly to the corneal margin was encircled by

a bluish, mottled band produced by the attenuating effects of pre-existing inflammation, allowing the ciliary body and choroidal surface to appear through the transparent scleral wall. The pupil was not visible without the aid of oblique illumination. The fellow-eye was sensitive to light, pupil contracted, ocular conjunctiva greatly engorged, with a deep pink-tinted zone encircling the corneal margin.

A four-grain solution of atropia was dropped into the eyes, a pair of London smoked coquilles to protect the eyes from light were ordered, and a purgative dose of calomel administered.

The peripheral portion of the fundus of the left eye presented the appearance of Scotch granite. There was such an amount of retinal hyperæmia that it was impossible to see the marginal outlines of the optic disc. By the aid of strong oblique illumination extensive posterior synechia was discovered in the right eye. Corrosive sublimate in solution, alternated with iodide of potassium, compound tincture of cinchona, syrup of the iodide of iron occasionally, atropia drops locally, brought about a well-marked intermission in the disease. At this stage iridectomy was suggested, with the assurance that the disease would thereby be limited in its effects, and perhaps permanently arrested. If this operation were neglected, renewed paroxysms with exacerbations would come on continually, ending in complete destruction of vision in both eyes. The parents hesitated, the family physician did not insist upon it, and the disease returned as predicted. The child had the characteristic teeth described by Dr. Hutchinson.

The grandfather on the mother's side had been the subject of constitutional syphilis. The mother had lost her front teeth in childhood, and was deaf in the right ear, beside having an indolent ulcer on the leg.

This boy was again brought to me in June, 1873. Posterior synechia existed in both eyes. The structural changes in the right cornea were such as to create permanent opacity. The left cornea was extensively mottled with plastic deposit. The antisyphilitic treatment had been continued by the family physician, and there was no longer photophobia nor conjunctival engorgement. The visual power in the right eye was *nil.* In the left fingers could be counted at three feet.

Iridectomy, including fully one sixth of the irides, was practiced. The constitutional and local treatment continued. On the first of

January, 1874, this boy was able to go to school, and has been ever since that time regularly engaged in the pursuit of his studies. He sees but little with the right eye, depending entirely upon the left for his ability to distinguish letters and figures.

Miss Bettie R., aged sixteen years. Irido-cyclitis in both eyes. Unable to walk about alone on account of defective sight. Dr. S., through whose kindness and partiality the patient had been induced to consult me, stated that Miss Bettie's mother was then suffering with syphilis acquired from her husband. Iridectomy in this case enabled me, with the constitutional treatment which before had been but palliative, to arrest the disease entirely and restore sufficient visual power to enable the young lady to read with ease and comfort.

Numbers of cases might be cited to show the happy effects of the timely performance of iridectomy in syphilitic diseases of the uvea.

Irido-cyclitis, choroido-cyclitis, and plastic keratitis sometimes result singly from traumatic injury or tumors in the choroid, ciliary body, or iris. But when plastic irido-cyclitis is accompanied with the ground-glass appearance of the corneal surface it is almost certainly due to inherited syphilis.

Acquired syphilis, when it attacks the eye, begins in the choroid, the iris, optic nerve, or retina, and if it invades the cornea, produces ulcerative processes, and is apt to be associated with nodes upon the surface or the pupillary margin of the iris, or diffuse inflammation of the retina, and in some cases all these organs are involved at the same time. An idiopathortic choroido-cyclitis is necessarily arthritic or syphilitic.

If arthritic, glaucomatous symptoms will almost certainly be present on account of the serous type of inflammation. There will be no implication of the retina beyond the hyperæsthesia usually present in choroiditis. There will be no corneal opacity, and if the cornea be affected it will be by marginal ulcers. The field of vision will be contracted, the disc cupped, and pulsation generally present in the retinal vessels. This condition is uniformly attended with elevation of temperature, increased frequency of the pulse, and other constitutional symptoms.

Whereas, the syphilitic forms are always plastic in character, generally invade the cornea, are often unaccompanied with constitutional disturbances other than general debility.

The ophthalmoscope renders the diagnosis comparatively simple; though to the practiced eye the character of the disease may readily be determined without instrumental aid.

Errors of refraction frequently act as exciting causes of disease in the eye when nothing more than general debility points to constitutional predisposition. For instance, a syphilitic subject being a hypermetrope, by the undue strain of accommodation necessary for good vision, develops an irritation in the ciliary system of nerves, and this will develop inflammatory changes in the ciliary body or iris; consequently the exciting cause of irido-cyclitis is often found in an error of refraction.

The character of the inflammation is plastic in syphilitic subjects only. In all cases of constitutional syphilis two distinct features are present: first, the tendency to localized inflammations; second, the tendency to attack the glandular and tegumentary systems, and the organs of special sensation. Strumous subjects present all the evidences of lymphatic obstructions, eczematous, and parasitic affections of the tegumentary structures. They also have a form of choroido-cyclitis that tends to suppuration, or extensive serous effusions, producing what is known as dropsy of the eye-ball. Conical cornea usually belongs to strumous subjects; and in such cases there is hypersecretion of the aqueous humor, causing a constantly augmenting tension in the aqueous chambers. The cornea being more distensible than the sclerotica, yields gradually to pressure, all the while maintaining its transparency.

It has been my good fortune in one instance, where such an eye had to be removed on account of a piece of steel having penetrated it, to observe some of the changes in the ciliary body and contiguous structures.

There were well-formed tubercles on the temporal side in the projecting portion of the ciliary body, with atrophic changes in the choroid for about two lines in extent, all around a pigmented spot just at the ora serrata. The ciliary muscle at this point was of a deep-red tint.

This eye had been sensitive for years, and the development of the disease was very slow. Another form of strumous disease is the oft-recurring phlyctenular ophthalmia, so common among children. This

disease is almost uniformly associated with tenia ciliaris, or tenia tarsi, as it is generally called. Phlyctenular ophthalmia is a disease as much dependent upon constitutional dyscrasia as kerato-cyclitis.

The phlyctenular affection must therefore be treated chiefly by constitutional means. In the treatment of syphilitic forms of disease defibrinizing agents are necessary to overcome the plastic character of inflammatory exudations, and thus facilitate their removal by absorption. In the strumous forms, where lymphatic obstructions are to be overcome, the offending material being of a fibrinous character, defibrinizing agents are also demanded; but they should differ in character from those employed for the removal of plastic exudations.

The strumous subject requires iron, iodine, and oftentimes bitter tonics to improve his digestion, stimulate his glandular organs, and thus prepare him for the development of new tissue with which to heal the breach; for there is almost uniformly some loss of texture, while in the syphilitic cases it is commonly observed that morbid accretions exist. In the one case something must be found to replace lost substance; in the other something must be found to remove morbid accumulations.

These hastily adjusted views have long been regarded by your humble reporter as being worthy of public expression, and it is hoped they may serve to direct attention to some practical points of general interest to the profession.

REPORT OF THE COMMITTEE

ON

KENTUCKY MEDICAL NECROLOGY

TO THE

KENTUCKY STATE MEDICAL SOCIETY.

APRIL, 1877.

By L. BEECHER TODD, M. D., Chairman, Lexington, Ky.

In Memoriam.

Dr. JAMES MILES BUSH,	Lexington.
Dr. GEORGE SYNG BRYANT,	Lexington.
Dr. JOSEPH COLEMAN CARTER,	Versailles.
Dr. JAMES LOWRY,	Shelbyville.
Dr. BENJAMIN M. WIBLE,	Louisville.
Dr. JOSEPH SMITH,	Lexington.

KENTUCKY MEDICAL NECROLOGY.

LEXINGTON, KY., March, 1877.

DR. R. W. GAINES, *President of the Kentucky State Medical Society:*

Sir—As Chairman of the Committee on Necrology, appointed at the last meeting, I have the honor to present herewith memoirs of the eminent surgeon, James Miles Bush, of Lexington; Dr. George Syng Bryant, of Lexington; Dr. Joseph Coleman Carter, of Versailles; Dr. James Lowry, of Shelbyville; and Dr. Benjamin M. Wible, of Louisville. The report is one not of labor, but rather of love, gathered tributes to their memory made by loving hands, as garlands on their tombs. Surely it is becoming our profession, at annual reunions, while honoring and improving the living, to justly remember the noble and worthy dead. I thus pass their names to the muse of history, who, proud of the charge, marches with it down to coming time. The plain story of the lives of these physicians—Bush, Bryant, Carter, Lowry, Wible—recorded here, as related by those who knew them well, together with that of Henry Miller, Lewis Rogers, Joseph Smith, John Davies Jackson, all so recently gone beyond roll-call of this Society, I believe will form a very proudly-cherished chapter in the medical history of Kentucky. For when these men, so learned and so useful, so skillful and so true, fade from mortal view, they who knew them well owe it to their characters to preserve their memory on earth. When pestilence walked in darkness, and destruction wasted at noonday—plague, fever, or cholera—so touchingly and thrillingly described in the pages of Thucydides and Boccacio, of Defoe and Manzoni, between the living and the dying they stood when others fled in terror away, patient, faithful, and brave. I do declare that they, and such as they, in the past and in the future, by their heroism, shall cause to pale the glory of him who stood in the pass at Thermopylæ, fought on the bridge at Lodi, braved the shock at Waterloo, or scaled the towers of the Malakoff.

Most respectfully submitted.

L. BEECHER TODD, *Chm'n.*

Dr. James Miles Bush.

1808. LEXINGTON, KY. 1875.

Dr. James M. Bush died at his beautiful home in Lexington, surrounded by his family and friends, on February 8, 1875, at half past eight o'clock, A. M. Dr. Bush was among the most eminent physicians and surgeons of the day, and for more than forty years practiced his profession in this city. He was born in Frankfort in May, 1808. His parents were Philip and Eliza Bush. His grandparents, Philip and Mary Bush, came from Manheim, Germany, the home of Schiller, to Winchester, Va., about 1750. Dr. Bush's parents emigrated to Kentucky and settled in Frankfort. Of several children, there are but two whose history is known—Joseph H. Bush, a celebrated artist, and his brother, James M. Bush.

James was educated in Danville, where he graduated at Centre College in 1828, and afterward studied medicine and surgery with the celebrated Dr. Goldsmith, of Louisville. About the year 1830 or 1831, James Bush came to study at the College of Medicine of Transylvania University, attracted by the great reputation of the professor of surgery, Dr. Benjamin W. Dudley, to whose specialty young Bush had resolved to devote himself. He studied under the directions of this accomplished surgeon, and became his confidential student. He graduated from the Transylvania College in 1833, after which he was appointed demonstrator of anatomy for Professor Dudley, who in 1837 divided with his pupil the chair of surgery and anatomy, giving him the latter, and in 1839 he was regularly appointed to the chair of anatomy in the Medical Department of Transylvania University. This was considered an exalted position for a man so young; but

when his great attainments in his chosen profession were considered, all acknowledged the honor conferred upon him to be deserved. As a student he was remarkably diligent; and the thesis which he wrote before his graduation, and which is embellished with drawings and illustrations of no inconsiderable merit, is still to be seen in the library of the Transylvania (now Kentucky) University.

In 1850 Dr. Bush and some associate professors went to Louisville and assisted in the establishment of the Kentucky School of Medicine, now in existence, lecturing at Transylvania in the summer, and at Louisville in the winter. They resigned the Louisville professorships after three years and returned to Transylvania, remaining there until just before the commencement of the war of 1860. During all this time Dr. Bush gave undivided attention to the practice of medicine and surgery, for his was a temperament so full of vital energy and dislike of repose that he found most rest in most work. During the cholera of 1831–32 in Louisville he devoted himself largely to the cause of the suffering, and afterward in this city in 1833.

During the period of his professorship he made many interesting and valuable contributions to medical science through the columns of the Transylvania Journal of Medicine, and aided perhaps more than any one else in giving to the world the extraordinary experience of Dr. Dudley in the practice of lithotomy, for which that surgeon had deservedly a national and almost a world-wide reputation, and in the practice of which Dr. Bush proved himself a skillful and highly successful operator, which operation he performed twenty-eight times without the loss of a single case, as he himself declared to his fellow physicians Drs. H. M. Skillman and J. L. Stockdell.

As a teacher Dr. Bush showed the quality which marked him through life — that of clear-headedness. He was distinct in his enunciation of principles, exact in his demonstrations, and, without pretending to oratory, always interesting and clear to his pupils, by whom he was very much liked. As an instructor in the dry and technical science of anatomy he obtained quite a reputation, which was to be expected from his intimate acquaintance with the subject, his love for it, and the grip of which his mind was capable in dealing with such intricate though demonstrable truths. As a professor in the Transylvania Medical School in its palmiest days, he will be remembered by

hundreds of students, now far advanced in years, who profited by his teachings, and who will receive the intelligence of his death with a feeling of heartfelt grief. They will remember his patience and hard labor in the dissecting room, and his suavity of manner as lecturer. There could have been no better demonstrator of anatomy, as none understood it more thoroughly.

As a citizen he commanded the highest respect; as a surgeon he stood well nigh without a peer. His loss will be as deeply felt and regretted in the medical profession as in the community at large, with whom he was so intimately associated.

Dr. Bush was married in 1835 to Miss James, of Chillicothe, Ohio, with whom he lived a life of unexampled peace and happiness. During and since the war he devoted himself entirely to the practice of his profession, his remarkable skill as a surgeon obtaining for him a fame that extended throughout the length and breadth of the land. He was a close and keen observer, to which was due his remarkable accuracy in determining the pathology of disease, or, speaking more technically, diagnosing the case he was called upon to treat. He was probably longer and better known than any man in Lexington; had more personal friends and fewer personal enemies; and this is the highest praise that can be bestowed upon any man. Upon the personal character of the deceased every heart that knew him will pronounce its own eulogy. Every one will concede him candor; above all, the highest type of personal honor and dignity; a life above reproach; a spirit with aims always noble, and always pursuing them by means worthy of the object; and a heart always softened by the cry of distress, and pained even to agony when the relief of suffering was not within the power of his art.

To write a fitting tribute to such a man, if that man be a comparative stranger, is a matter of easy achievement; but to write of one who has been taken from your most intimate and friendly intercourse, is a task not easily to be accomplished; and on this account we fear that we have not done justice to the character of Dr. Bush; for while others valued him as a citizen and physician, we knew and valued him as a friend, and shall miss him scarcely less than his own family circle. If the esteem of the public, the highest appreciation of his professional brethren, the love and regrets of the poor, and the sincere

sorrow of his personal friends can be any consolation to his afflicted family, they have the assurance that these follow him as they have few men who ever lived and passed away.

His life-long friend, Dr. Lewis Rogers, of Louisville, Ky., who stood in the foremost rank of medical men upon both continents, thus writes of Dr. Bush:

"What was the basis of a character so noble, of a career so useful and distinguished, of an affection felt for him by all classes of people, of a confidence so great that when his extreme illness was announced a feeling was universal that some indefinable danger was imminent, and that the accustomed safeguard would be wanting if the great physician were taken away?

"Dr. Bush possessed a singularly well-balanced mind. His purely intellectual powers were of a high order; his perceptive faculties were keen, clear, quick, enabling him to make accurate observations upon disease and other subjects to which they were directed, separating the true from the false, the real from the hypothetical. Then he had genius of a varied kind—that inborn, indefinable essence including talent, and yet distinct from it. These more purely mental powers were so co-ordinated and impelled by the physical forces of the nervous system as to render him competent to achieve great results in any department of intellectual work. They were discerned at an early day by his sagacious preceptor, Professor Dudley. He saw that Dr. Bush possessed just the combination of mental powers to make him successful as a demonstrator of anatomy, as a teacher and practitioner of medicine and surgery; hence he did not hesitate to lay wide open to him his own extensive field of business. Once there, his success was assured. He enjoyed the confidence of his professional brethren, because they knew that his ample knowledge of medicine in all its practical departments, his diagnostic acumen, and his rational judgment in therapeutics were to be depended upon in cases of difficulty and danger. He won their admiration and love by his absolute fairness in all his professional relations. He walked along the broad, open pathway of medical science, illuminated by justice and truth. He scorned with a bitter scorn all those men who try to win success by detraction of other members of the profession. He despised charlatanry, whether practiced openly or by men who claim to be gentlemen and regular members of the profession.

"He certainly never did an unfair or mean thing, and I doubt whether an ignoble thought ever found lodgment in his mind. His constant association with young men kept him in sympathy with them, and he stood by them in their hours of trouble as long as his fealty to honor would permit him. Graduates of medicine pointed with pride to his name on their diplomas. The public estimate of him as a man and physician was unusually high. Few physicians have ever enjoyed so large a share of personal and professional confidence. Though never holding any official municipal position, on the occasion of his death the city council passed resolutions expressive of their high appreciation of his character, and regret that such a citizen should be removed from among them. The council attended his funeral in its official capacity, and instructed the mayor to issue a proclamation requesting the suspension of business along the streets through which the funeral cortege moved. This is a rare honor to a physician."

Dr. Bush was for twenty-eight years a permanent member of the American Medical Association, and for ten years (since the reorganization) a member of the Kentucky State Medical Society.

The funeral services took place at the Episcopal Church, of which Dr. Bush was an earnest, devoted member. Promptly at three o'clock the body of the deceased was borne up the aisle by the pall-bearers, Dr. W. S. Chipley, J. J. Hunter, John S. Wilson, Dr. Robert Peter, Dr. L. P. Tarlton, E. D. Sayre, M. C. Johnson, Dr. J. R. Desha, Rev. Thomas P. Dudley, and Benj. Gratz. The appropriate services of the Episcopal Church were read by the Rev. Mr. Shipman. At the conclusion of the services the remains were borne to the hearse by the pall-bearers and followed to the cemetery by the largest procession it has been our lot to witness for many years, notwithstanding the inclement weather. All classes and colors filled the available space, eager to gaze for the last time upon all that remained of the distinguished dead. The concluding services were read by Mr. Shipman at the grave of the deceased. The grave was then strewn with the choicest of flowers, many presenting them as a tribute of respect to the great physician.

Thus has passed away Doctor James Miles Bush, for forty years of his life a public teacher of medicine, and actively engaged in the duties and charities of his profession; for more than twenty years a

consulting physician, whose practical advice and diagnostic aid were widely sought by his brethren; and to the end of his days a progressive and noble exemplar of the great qualities that exalt our profession. The beneficent influence of his life still lives; his memory is embalmed in our hearts, and he will not be forgotten by the generations that follow us.

"Peace to the good man's memory; let it grow
Greener with years, and flourish with the lapse of ages."

RESOLUTIONS OF RESPECT TO THE MEMORY OF DR. J. M. BUSH.

The physicians of Lexington and Fayette County assembled at the office of Dr. Letcher on Tuesday the 9th inst. at twelve o'clock M.

On motion of Dr. Chipley, Dr. John R. Desha was requested to preside, and Dr. L. B. Todd appointed secretary.

The president stated that the object of the meeting was to prepare a tribute of respect to the memory of our late distinguished friend and surgeon, Dr. Bush.

Dr. Chipley moved that a committee of five be appointed to draft resolutions expressive of the sense of the meeting, whereupon the president announced the following committee: Drs. Henry M. Skillman, Robert Peter, William S. Chipley, John W. Whitney, Joseph P. Letcher; which committee reported the following preamble and resolutions, which were unanimously adopted:

Whereas, Death has again invaded our ranks and borne from our midst one who for more than forty years has filled the public eye and won for himself a most enviable reputation.

Whereas, This is not the time or place to attempt a full and accurate delineation of the character and labors of our departed friend and confrere. The luster of his character will long continue to acquire accessions from the glow of public gratitude and the ardor of private veneration of those who have known him best. His long service in the cause of humanity, the purity of his moral character, and his attainments and practical skill in his profession met through life the public approbation and won for him in full measure private esteem and gratitude.

Whereas, Resolutions usually deemed appropriate on occasions like the present are wholly impotent to express the feelings that now op-

press us, to portray the character of the deceased, or to do justice to his reputation as a successful physician, a skillful surgeon, and as an able teacher. We deeply sympathize with the widowed mother, the son, and daughter; and while we can offer no earthly consolation to assuage their grief, we may with them feel reconciled to this dispensation of divine Providence, in the firm belief that, having escaped the toils and sufferings incident to this life, his disembodied spirit is now at rest where dwell light and life eternal. Therefore be it

Resolved, That while we bow submissively to this dispensation of an all-wise and overruling Providence, we desire to bear testimony to the great personal and professional worth of our departed brother and associate, and shall ever cherish with grateful recollections his uniform kindness and consideration for the younger members of the profession, and his fair and honorable intercourse with those of us who were more nearly of his own age.

Resolved, That while Lexington has lost a most valued and useful citizen, and society a man whose place can not readily be supplied, the medical profession has sustained an irreparable loss, and will long mourn the departure of one on whom they gladly leaned in time of trial, and whose counsel and advice in difficulty was invaluable to us all.

Resolved, That we heartily sympathize with his family in this sore bereavement which falls so heavily on us, but must descend with crushing weight on those connected with him by ties more tender.

Resolved, That we will attend his funeral in a body and wear the usual badge of mourning.

Resolved, That a copy of these proceedings be sent to the family; also be published in the papers of the city and medical journals of the state.

Dr. H. M. Skillman moved that the physicians of the city meet at the late residence of the deceased, and proceed in a body to attend the services at the church.

On motion of Dr. J. M. Bruce, the above preamble and resolutions were unanimously adopted.

JOHN R. DESHA, *Chm'n.*

L. B. TODD, *Sec'y.*

City Council Meeting.

At a called meeting of the City Council, held on Monday night, the death of James M. Bush having been announced, a committee consisting of Messrs. Breckinridge, Mulligan, and Johnson, to give an expression to the public regret at so great a loss, reported as follows:

Whereas, This council has heard with profound regret of the death of our distinguished fellow-citizen, Dr. James M. Bush, who to the character of a scientific physician and surgeon added that of a useful and public-spirited citizen, it becomes our body to take some action giving expression to a sense of the public loss at his death; therefore,

Resolved, That the City Council has heard of his death with sincere regret, as a public as well as a private loss, of one whose fame and attainments in his profession were a solid advantage to the city in which he lived so many years, and whose private virtues endeared him to those who came to take advantage of his professional skill.

Resolved, That the mayor issue his proclamation requesting that the business houses be closed on the line and during the passage of the funeral cortege, and that the council do attend his funeral in a body.

Resolved, That the city clerk be requested to furnish a copy of these resolutions to the family of the deceased, and that they be spread upon the minutes of this body.

Resolved, That the city papers be requested to publish the same.

George Snyder, *C. C.*

Northern Bank of Kentucky.

At a meeting of the Board of Directors of the Northern Bank of Kentucky, held at Lexington, February 9, 1875, the following preamble and resolutions were unanimously adopted:

Whereas, This Board having learned with deep regret of the death of our distinguished fellow-citizen and member of this Board, and our personal friend, Dr. James M. Bush; therefore,

Resolved, That in the death of so eminent a physician and so useful a citizen we recognize a heavy loss to this city and a severe affliction to his family and numerous friends, in which we sincerely sympathize.

Resolved, That we will attend his funeral in a body.

Resolved, That copies of these resolutions be transmitted to the family of the deceased and furnished to the city papers for publication.

M. C. JOHNSON, *Pres't.*

MEETING OF THE DRUGGISTS.

At a called meeting of the Pharmaceutical Association on Monday afternoon, John S. Wilson in the chair, a committee of three was appointed to draft resolutions of respect as a tribute to the memory of the late Dr. James M. Bush. The following were unanimously adopted:

Whereas, Almighty God, the Ruler of the universe and the Source of life, has stricken in death our friend and associate, Dr. James M. Bush,

Resolved, That we bear testimony to his great moral worth and his high appreciation of the relation existing between the two professions, medicine and pharmacy, and that in his death we have lost a true friend in our efforts to raise the standard of pharmaceutical knowledge, and society has lost one whose upright and noble life is worthy of emulation.

Resolved, That we extend to his bereaved family our heartfelt sympathy, and commend them for consolation to Him who orders all things well, and who has said, "Come unto me, all ye that are weary and heavy laden, and I will give you rest."

Resolved, That these resolutions be spread upon the records of the association, published in the city papers, and a copy be sent to the family of the deceased.

J. J. FROST,
H. A. RIDGELY,
W. H. DOWNEY,
} *Committee.*

DOCTOR BRYANT, late medical superintendent of the First Kentucky Lunatic Asylum at Lexington, Kentucky, died on Thursday, June 24, 1875, at eleven o'clock, A. M., at the above-named institution. He was born in Powhatan County, Virginia, on March 4, 1824.

He was educated and received the honors at Hampden-Sidney College at an early age, and was graduated from the Jefferson Medical College on the 10th of March, 1845. He removed to Mississippi, where he resided ten years and practiced his profession successfully.

During the war he rendered conspicuous service as surgeon and medical director in the Confederate army. After the close of the war he removed to St. Louis, where he found the climate making serious inroads upon his health, already impaired by active service and exposure. He came to our city to practice his profession in the spring of 1868. He was warmly welcomed by the State Medical Society, which convened about that time at Danville, where he made a most favorable impression, and secured for himself the high estimate and exalted esteem of many of the distinguished men of our state, which ceased only at his death.

Early in May he was attacked with erysipelas, which very soon assumed a grave aspect, and caused his family and friends alarm, from which, however, he recovered, but not in time to attend, as he himself had so earnestly desired to do, the meeting at Louisville of the American Medical Association, to which he had been an accredited delegate from the Kentucky State Medical Society. Dr. Bryant had scarcely recovered sufficiently to appear in his office and discharge its duties,

which had been ably done by his faithful assistant during his illness, when he was seized with rheumatism, which soon attacked with great severity vital organs, both brain and heart, baffled all medical skill in his already debilitated condition, and closed his useful life and bright career on Thursday at eleven o'clock, the 24th day of June. He was attended by his professional friends, Drs. Joseph P. Letcher, G. D. Buckner, J. C. Atkins, and by the writer of this memoir, who hereby bear testimony to his patience and fortitude under great suffering, and heroism at the approach of the king of terrors; and who here record with infinite satisfaction his assurance given to that man of God, Rev. Joseph Desha Pickett, who ministered to him in his last hours, of his hope securely placed in the blood and atonement of his Saviour, by and through which he hoped to enter through the gates into the city of life eternal.

A friend from a distant city, Rev. C. F. Miller, preached his funeral discourse, which was largely attended by our citizens, the entire medical profession and board of managers of the institution in their respective bodies, and the distinguished superintendents, Dr. Rodman, of the asylum at Hopkinsville, and Dr. Forbes, of the asylum at Anchorage.

We made him a grave in our beautiful city of the dead, where, by loving hands, he was laid "with flowers upon his untroubled breast and his face toward the rising sun."

Dr. Bryant was a remarkable man; possessing a handsome physique, graceful manner, and pleasing address, he soon impressed those who knew him best of his fine natural abilities, general and useful acquirements. The enthusiasm for his profession, his admiration for the masters of his science, his studious habits, his contributions to the medical journals, all marked him as a man of no ordinary cast. He was honored with the position in which he died with the harness on, for which his kindness of disposition, learning, and executive ability proved him eminently worthy and qualified. Thus, again, has the great harvest-field in which the medical profession are toilers been entered by the Reaper "whose hand takes the ears that are hoary, while the voice of the weeper wails manhood in his glory," as with the gifted Bryant. He will be missed indeed from the Association of Superintendents of American Institutions for the Insane, of which he

was an honored member; from the Kentucky State Medical Society, to which he was a contributor; from the practitioners of medicine in this sectiom, among whom he numbered warm, admiring friends, though but a few years in their midst, and from society, of which he was an ornament.

RESOLUTIONS OF RESPECT.

At a meeting of the physicians of Lexington, held at the office of Dr. Joseph P. Letcher, to offer proper tribute of respect to the memory of the late Dr. George Syng Bryant, Dr. J. C. Darly was called to the chair, and Dr. G. D. Buckner appointed secretary.

A committee, composed of Dr. L. Beecher Todd, Dr. Joseph P. Letcher, Dr. M. E. Poynter, of Midway, Ky., Dr. Jno. R. Desha, Dr. Thos. W. Foster, was appointed to prepare resolutions of respect to the memory of Dr. Bryant, expressive of the sense of the meeting, which committee presented, through the chairman, Dr. L. B. Todd, the following resolutions, which were unanimously adopted:

WHEREAS, Death has again invaded the ranks of our beloved profession and removed a brother from us in the very prime of life, in the midst of active professional duty, occupying the high and honorable position of medical superintendent of one of the noblest charitable institutions of the country, Dr. George Syng Bryant, who died Thursday, 24th inst., at eleven o'clock, A. M. And while we bow in submission to this inscrutible decree of an all-wise Providence, desiring to express our appreciation of his character, his virtues, and his usefulness, therefore, be it

Resolved, That in the death of Dr. George Syng Bryant the medical profession has lost a learned and useful member, who had taken great pains to qualify himself to discharge its arduous duties, who was well instructed in its literature, and a successful contributor to it, a diligent student, a laborious observer, delighting ever in its scientific department, who, having sojourned a few short years only in our midst, we render this heartfelt tribute to his acknowledged worth, and mourn his early and untimely death.

Resolved, That as a token of our respect for our fellow who has fallen by the way, weary in the march of life, we wear the usual badge of mourning, and attend his funeral in a body.

Resolved, That we hereby express for his sorely-bereaved widow our

heartfelt sympathy and condolence, and as a slight evidence thereof the secretary be requested to present to her a copy of the foregoing.

Resolved, That the proceedings of this meeting be published in the medical journals of our state and papers of our city.

BY THE BOARD OF COMMISSIONERS OF THE FIRST KENTUCKY LUNATIC ASYLUM.

At a meeting of the Board of Commissioners of the First Kentucky Lunatic Asylum, held at the office of F. K. Hunt, Esq., president of the board, Friday, June 25, 1875, at twelve o'clock, the following resolutions were unanimously adopted:

Whereas, In the ways of an all-wise Providence, Dr. George Syng Bryant, the Medical Superintendent of the First Kentucky Lunatic Asylum, has been removed by death from his place among the living; therefore,

Resolved, That in the death of Dr. Bryant the institution of which he was the head has lost a faithful, energetic, and devoted medical superintendent, who was constantly at his post of duty, and ever anxious to do all in his power to relieve the suffering of others, and one who was especially tender and regardful in the discharge of the delicate and difficult task committed to him of caring for the unfortunate to whose infirmities he was called to administer; therefore,

Resolved, That the Board of Commissioners of the Asylum convey to his bereaved widow their expression of sorrow at the death of Dr. Bryant, and their profound sympathy for her in this her time of deepest affliction.

Resolved, That the secretary of this board present to the widow of the deceased a copy of these resolutions, that they be put upon the records of the minutes of this board, and that copies be furnished the city papers, with the request that they publish them.

J. F. JOHNSTON, *Sec'y.*
F. K. HUNT,
P. P. JOHNSTON, } *Committee.*
B. G. THOMAS,

Dr. Joseph Coleman Carter.

1808. VERSAILLES, KY. 1875.

Doctor Joseph C. Carter, died at his residence in Versailles, Woodford County, Kentucky, on Wednesday evening, ——— 26, 1875, at six o'clock, of apoplexy. Thus has passed away another of the most excellent, useful, and distinguished physicians of central Kentucky, one who has been identified with, and advanced the prosperity of his state in various departments for more than half a century. Modest, dignified, and kind by nature, he possessed an intellect of superior order; a fine mind, cultivated by reading and intercourse with the most accomplished men of his time. He was justly esteemed a credit and an honor to his race.

He practiced his profession over a large section of country with noted success from early manhood to the close of a long and useful life, during which period he encountered several fearful epidemics of fever; one in 1842–3, proving almost a scourge, in which he ever bore himself with faithfulness and heroism.

He studied diligently and acquired knowledge, which rendered him an *authority*, and thereby useful to his community in after life. His professional attainments commanded the confidence, and his honorable bearing secured the respect of his professional brethren; the one ceased only with his death, the other will long survive him. The gifted editor of The Woodford Weekly, Mr. Bowmar, pays the following beautiful and just tribute to his memory:

"This community has seldom received a severer shock than in the recent death of Dr. Joseph C. Carter. An attack of rheumatism had confined him to his home for several weeks, but no serious apprehen-

sions had been felt by his family; when suddenly on the morning of Wednesday, January 26th, the sad news that he was dying ran through the village. His old friends and neighbors gathered about his bed, but his eyes were closed in an unconscious slumber which terminated the same evening in the sleep which knows no waking. Every effort which medical science could suggest was put forth, but in vain.

"Dr. Carter was born near Charlottesville, in Albemarle County, Virginia, December 23, 1808. During the following year his parents removed to Woodford County. His father, Goodloe Carter, was for many years a most useful and highly-esteemed citizen of this community. His mother, Mary Crenshaw Carter, was a lady who might have sat for Solomon's portrait of a noble woman, and whose children have indeed "risen up and called her blessed."

"The grammar-schools of Woodford County were of remarkable excellence during the first quarter of this century, and at these the subject of this sketch received a thorough classical education, a fitting preparation for the profession for which he was designed.

"In 1827 at the age of nineteen he went to Cincinnati, where he was for five years an inmate of the family of the celebrated Dr. Daniel Drake, who was proud to own him as a favorite pupil and *protegé*. During this time he spent a winter with Dr. Drake in Philadelphia, attending lectures there and having the advantage of access to the more extensive hospitals of that city. In 1832 he graduated at the Ohio Medical College, and returned to Kentucky prepared for the practice of his profession. On the 13th day of November of that year, he was united in marriage to Miss Margaret T. Carlyle, who survives him; a union the harmony of which nothing but death has ever disturbed. They have been blessed with seven children, two of whom died in infancy. A son, Louis Marshall, a young man of great promise, was accidently killed a few months ago, casting the first shadow in many years upon this happy home. The surviving children are Dr. D. Drake Carter, Mrs. Zack White, and Misses Ella and Josephine Carter.

"Soon after Dr. Carter established himself in the practice of medicine, he was called upon to pass through that dreadful epidemic, Asiatic cholera, which raged with terrific fury during the years 1833 and 1835. He came out of the ordeal with great credit, winning

golden opinions and laying the foundation of his reputation. From that time to the present his practice has always been large, and attended with great success.

"He was endowed with a fine intellect, an almost iron constitution, and an untiring energy, and had applied himself under a great master of the profession for an unusual length of time. He would have risen to great eminence had he chosen his field in some large city where all of his qualifications would have been called into play; but the happy destiny which cast his lot in a quiet town, while it denied him fame, showered upon him the blessings of a long and happy life, surrounded by a circle of refined society of which he was the idol. He was a man of great dignity, yet without the slightest self-conceit or arrogance. Of pedantry, so often a weakness with the profession, he was utterly incapable. With a memory relentless in its grasp of details, and stored with technical terms, he had always at command the plainest English in which to explain to a patient whatever was needful for him to know. In the sick-room his presence was perfectly beneficent. Who can ever forget the charm of his manner to the sick, his graceful and attractive conversation, his ready sympathy, his marvelous patience? The deepest dejection would yield to the fascination of his cheerfulness, and the poor sufferer be made to forget his pain in listening to the interesting anecdotes and reminiscences, of which his store was inexhaustible. The whims and vagaries of hypochondriacs excited in him pity instead of petulance, and he would kindly reason away the fears which others would mock.

"In social life Dr. Carter appeared to great advantage. He possessed the art of putting every one at ease, and his charming vivacity made him the life of every circle. His mansion has been ever famed for its hospitality, and yet this must not be understood in any ordinary sense of the word. He literally expended fortunes in entertaining his friends, and would not have begrudged the wealth of Crœsus in giving delight to those he loved. No one ever took greater pleasure in the happiness of young people, and few have commanded their affection in an equal degree. He was continually mindful of the necessities of the poor, and his purse and services were always accessible to the unfortunate. Not only did he perform a large amount of charity practice, where compensation was impossible, but he exercised unusual

generosity to those in limited circumstances who would have been embarrassed by the pressure of his claims. The charm of his benefactions was that he forgot them as soon as bestowed.

"As a citizen he was enterprising and public-spirited. Whatever was likely to contribute to the advantage of the community found in him an earnest advocate and liberal supporter.

"During the varying fortunes and vicissitudes of a long and active life he sustained the reputation of a high-toned, honorable man. Not one of the many sacred trusts of which he was the recipient was ever betrayed, nor has the slightest stain ever rested on his name. To this it is grateful to add that in the latter years of his life he embraced religion, for which he had always exhibited respect and veneration.

"This man, so full of noble qualities, so endeared to our hearts, has passed forever from our midst. It is no wonder that our people mourn, for they will not look upon his like again.

"If earth another grave must bear,
Yet Heaven hath won a sweeter strain,
And something whispers to despair
That from an orient chamber there
Floats down, 'We meet again!'"

Dr. James Lowry's death occurred on the 4th of December, 1876, while on his way to visit a patient. He fell from his horse a mile and a half from Shelbyville, and when found about fifteen minutes afterward was dead. Dr. Logan writes that no one saw him fall. No marks of violence or evidence of struggle were found upon his person, and the presumption is that he died either from heart-disease or that the fall killed him.

Dr. Lowry was born in Ireland, February 14, 1817. At the age of eighteen years he arrived in the United States and came immediately to Lexington, Ky., near which place he spent some years overseeing the farm of Prof. Wm. Richardson, M. D. He was afterward appointed janitor and librarian of the Medical Department of Transylvania University, from which institution he was graduated with distinction on March 15, 1843. His thesis presented on graduation evinced a powerful mind, capable of grasping and mastering most difficult subjects. Reasoning faculties of highest order and diligent research indeed truly foreshadowed his future of distinction for usefulness and goodness.

He immediately entered upon the active and arduous duties of his professional life-work, and practiced a few years in Pleasureville, Henry County, Ky., the rest of his life in Shelby County, the last ten years in Shelbyville. At the age of thirty-eight he married Miss Helen Bullitt (a sister of the distinguished Prof. Henry M. Bullitt, of Louisville) who, with nine children, survive him. Dr. Lowry was a self-made man. By the persistence of his own efforts he rose to an eminent position. Naturally endowed with fine intellectual powers, and a man of in-

dustry, he stood among the first of his class while pursuing his studies, and among the first of his professional brethren when a practitioner. Of fine, discriminating judgment, he was very successful as a physician, and enjoyed the confidence of the families in which he practiced to a remarkable degree. Blest with a happy, joyous temperament, he was always welcome in the sick-room and in society. He was a good man. He had independence of thought. He pursued the path which seemed right to him, even if detrimental both financially and socially. During the war he was a staunch Union man, and maintained his principles unshaken with great courage and boldness, often in the face of personal danger.

Above all, he was a Christian. He united with the Presbyterian Church in early life, and maintained his connection with it until death. In 1867 he was elected elder in the First Presbyterian Church at Shelbyville, which office he held till he was made a member of the Church triumphant.

His call to glory was instantaneous, while on his way to visit a patient. No one was with him but Jesus. The heart of the whole community was chilled. The almost unprecedented assemblage which paid the last rites of respect to the departed showed the universal respect in which he was held. A valuable man in every relation of life is gone. "They rest from their labors, and their works do follow them."

His personal friend, Rev. Dr. J. S. Grasty, former pastor of the Presbyterian Church at Shelbyville, pays the following just and excellent tribute to his memory:

"Dr. Lowry was a man possessed of too many gifts and graces to be allowed to pass away without a distinct tribute to his worth. He filled a large place in public estimation, and there are scores of families in which his presence will be missed, like that of a brother or a friend. In early life Dr. L. chose the medical profession, and although there were serious difficulties in his path toward the desired goal, yet his purpose never faltered, and through indomitable courage the necessary credentials were secured. That nature had intended him for his particular calling was evidenced by the fact that he soon attained distinction. The elements of Dr. Lowry's success may be summed up as follows:

"I. Unquestioned genius. There was given to him not simply talent, but a quickness of intellect that went swiftly to his subject. When summoned to the sick-bed his bright eye discerned at a glance the character of the disease. In diagnosis of maladies he scarcely had an equal. Nor was this all; the analytic stamp of his mind enabled him to calculate the relation of one disease to another, and thereby forestall general injury to the system by a judicious use of remedies. He studied the temperament and peculiarities of each separate patient, and this, in connection with his deep knowledge of the human heart, gave him a vantage-ground enjoyed by few. As he lingered in the sick-room and examined again and again the condition of the sufferer he appeared to possess the faculty of looking on the disturbing cause.

"II. He kept himself abreast of the medical reports and science of the day. Not only did he turn over continually the pages of standard works, but there ever lay on his table the best journals of the time. These, and all else auxiliary to his calling, he read, pondered, and calmly digested. But while he consulted authorities he never slavishly followed the theory of any. His own mind had been cast in a mould far too independent to yield implicitly to mere opinion by whomsoever uttered. He weighed, sifted, and carefully tested for himself; and to this wise caution was due the remark so frequently heard, "Dr. Lowry will do you no harm if he does you no good," for he had nothing to accord to that species of practice which recklessly experiments with human life in order to test the value of some newly-propounded nostrum. He regarded as sacred the rights of the individual in every effort of the empiric to make fresh discoveries.

"III. Dr. Lowry was conscientious. The moment the healing of the invalid was intrusted to his skill he felt that a duty had been imposed which no promise of money or of reputation should tempt him to forget. The sympathy and flexibility of his nature empowered him to identify the households to which he ministered with his own "kith and kin." In the countenance of the little child, for instance, that suffered, was imaged the features of his own dear ones in the cradle. He must be as careful of the medicine given, as much on the outlook for mistake as though the happiness and restoration of his own were involved. It was the lively belief of the doctor's sen-

sibility to do justice and right in the practice of his profession that begot in the minds of his patients an ever-abiding confidence. It was felt always on the part of those who employed Dr. L. that here was a physician who could be soberly trusted.

"IV. Dr. Lowry's wit and humor in the sick-room were medicine in themselves. Sprightliness, fancy, apt repartee were as native to him as singing to the birds. His mind never had to be put upon the rack to say a brilliant thing, but his soul ever bubbled with the truest corruscations of genius; and hence none but a confirmed hypochondriac could resist the outgushings of his warm and racy humor. At this point so extraordinary were the powers of the doctor that had his lot been cast in certain renowned *coteries* his position as a piquant talker must have been first class.

"V. Dr. Lowry was a kind neighbor, and the bestowment of a favor seemed to excite in his bosom unalloyed pleasure. In all those courtesies and interchangings of benefits the doctor never allowed himself to be surpassed. He ever returned far more than he received. Toward the poor, as a physician, he was in an eminent degree considerate. At the call of these destitute ones he would arise at midnight and answer their needs through darkness and cold. There are scores among the destitute and dependent who can recall not only his ministries at the sick-bed, but a timely supply of greatly-needed stores.

"VI. Dr. Lowry loved his own household with a deep heart-affection. To provide for his wife and children constituted an absorbing and tender thought in his orderings of the day. He appeared to care little for personal ease; luxury and show he never desired; but his face shone brightest when lighted with the consciousness that this or that gift or act of his life had augmented the joy of the loved ones at home. In intercourse with the doctor as neighbor and friend the impression that he left was a conviction of his unselfishness in every relation. Nor could such outward conduct of the doctor have been the outcome of timidity or contrivance, for in the midst of the humor and genial companionship that so attracted, it was universally understood that he possessed a nerve and lofty courage that never flinched before odds however great. His valor had been over and over again tried, and never in a single instance had it ever been known to fail.

"VII. Above all, Dr. Lowry was a Christian. He possessed a piety,

modest, like its possessor; but those conversant with his inmost thoughts can testify to its genuineness. Often has the writer conversed with him upon this greatest of subjects. His views were exceedingly clear and intensely scriptural. His notions, indeed, of truth were so distinct and enlarged that one might readily have suspected that a portion of his early life had been given to a systematic study of theology. Nor was his acquaintance simply intellectual, but the gospel in its life-giving power had reached to his heart. He loved his church; he loved yet more the cause of Christ, for his faith laid hold without reserve of the great atonement. He had with a remarkable definiteness committed his soul's all to that Substitute and Saviour who 'has done all.'

"A wise man, a gifted and capable physician, a sympathizing friend, a charitable neighbor, a fearless heart, a kind husband, a tender and loving father, a citizen of rare usefulness, a sincere Christian gentleman has gone to his rest and reward. One who knew, admired, and loved him lays this simple wreath on his tomb."

Shelby County Medical Association.

Whereas, In the providence of God our esteemed associate and fellow-citizen, Dr. James Lowry, while in the flush of health and engaged in the active discharge of his professional duties, has been removed from our midst by sudden death;

Resolved, That in the death of Dr. Lowry the community has sustained the loss of a good citizen, a skilled, faithful, and most kind physician, and this society an earnest and faithful member.

Resolved, That the members of this society most deeply deplore the death of Dr. Lowry, and that we, in the name of the profession of the county, tender our sympathies to his family in their distress, and offer them our sincere condolence, their highest consolation being in the remembrance of his well-spent life, his unblemished reputation, and a death whose gloom is removed by the Christian's well-founded hope of a blissful immortality.

Resolved, That these resolutions be spread upon the minutes of this society, and a copy of same be sent to his family, and also be published in the newspapers of the county.

After the above resolutions were passed the society adjourned out of respect to the memory of the deceased.

DR. BENJAMIN M. WIBLE, for the last thirty years a prominent physician of Louisville, died at his residence on Second Street near Broadway, at noon on Monday the 26th of March, 1877.

DR. WIBLE has for thirty-five years been an eminent practitioner of medicine in Kentucky, and died in his sixty-fourth year. He was born in Nelson County, Ky., August 13, 1814, graduated in medicine at Cincinnati in 1834, and in 1836 commenced practice in Mt. Washington, Bullitt County. In 1839 he moved to Shepherdsville and practiced there for one year, when he returned to Mt. Washington. There he remained till 1847, when he removed to Louisville. In the same year he went to Mexico as a surgeon in the American army. After the war he returned to Louisville and resumed the practice of his profession until the year 1861, when he enlisted as a surgeon on the Confederate side, remaining in the army until the close of the war. A short time afterward he returned to Louisville and again resumed his practice, proving himself as useful in peace as in war, and gaining a large number of friends in the profession and public generally. His funeral took place from the Second Presbyterian Church at four o'clock, March 27, 1877. His professional brethren met in the Louisville School-board room at eleven o'clock A. M., March 27, 1877, to take action with reference to the death and funeral.

TRIBUTES OF RESPECT.

The physicians of Louisville held a meeting in the school-board rooms for the purpose of taking action upon the death of Dr. Benjamin M. Wible. Dr. E. D. Foree was called to the chair and Dr. Cole-

man Rogers appointed secretary. A committee on resolutions was appointed, consisting of Drs. H. M. Bullitt, J. M. Bodine, David Cummins, J. B. Richardson, and Willoughby Walling. While the committee was deliberating, appropriate remarks of eulogy were made by Dr. J. M. Keller. The committee made the following report:

Death has been here, and Dr. B. M. Wible's spirit has been severed from its earthly habitation.

The recollection of his virtues will embalm his memory within our own, and the lessons taught by his stern integrity, his constant and faithful performance of duty, his eagerness of heart and high sense of honor must leave their impress upon all with whom he came in contact.

Resolved by the physicians of Louisville assembled, That in Dr. Wible we recognized all the virtues that make a noble life. He was generous, brave, and kind, with a heart ever responsive to any call of his fellow-man, and a hand ever ready to aid distress wherever found. In business intercourse he was always just, giving to the full measure. As a citizen he was noted for his unswerving and enthusiastic patriotism. As a physician he was patient, tender, and sympathetic, devoted alike to his profession and to suffering humanity.

Resolved, That in the death of Dr. Wible the medical profession of this city and state has lost one of its brightest ornaments and one of its most accomplished members. In his intercourse with his professional brethren he was distinguished for his hearty appreciation of their merits and leniency toward their short-comings; his gentle spirit made him

"To their virtues very kind, to their faults a little blind."

Resolved, That we tender our deepest sympathy to his family in this their hour of bereavement and affliction.

Resolved, That a copy of these resolutions be sent to his family, and published in the daily papers and in the medical journals of the city.

H. M. BULLITT,
J. M. BODINE,
DAVID CUMMINS,
J. B. RICHARDSON,
WILLOUGHBY WALLING,
} *Committee.*

After the report of the committee was adopted the following communication from Prof. E. S. Gaillard was received:

MR. CHAIRMAN: While I am unable on account of sickness to be present at the meeting over which you are called upon to preside, I can not deny myself the privilege of uniting with my brethren in the sad tributes paid here to a very dear and departed friend. It is true that much of what is said at such memorial meetings is coldly estimated as formal or conventional, yet friends will still gather when death invades their circle, and still offer the sincerest testimony to the magnitude and severity of their loss. Where so many have their tributes to offer, each must necessarily be brief.

A few months since, in one of his pleasant visits to my house, Dr. Wible mentioned that he was color-blind at night; that gas lights were of different colors as examined by either eye. We went to the office of a mutual friend, Dr. Ruschaupt, and had his eye closely examined. Under the treatment recommended, his vision improved, but his general appearance excited soon the apprehension of his friends. The secretions being now examined, it was found that he was not only the subject of grave disease, but that this disease had evidently made serious progress. His heart was materially involved, though the valvular derangement was not yet sufficient to excite alarm.

Dr. Wible was now under the medical supervision of devoted friends, and every thing was done by them, by hosts of other sincere friends, and by a wife of surpassing endurance, judgment, and affection to contribute to his comfort and relief. For a very brief period he responded to treatment, but soon he gave evidence of failure. His appetite not only perceptibly failed, but evidences of gastric debility made their appearance. Early in January nausea after eating was manifested, and soon after this, ejection of food became a frequent and foreboding symptom. His renal and cardiac trouble seemed to make little progress, but it was evident that the blood-poison accumulating was being chiefly eliminated by the stomach. His sufferings, borne from first to last with beautiful fortitude, steadily increased, and the chief danger to life, inanition, rapidly culminated. This was apparently to be the immediate cause of death, and subsequent events demonstrated this fear to be just. Through weeks of extreme suffering, watched by devoted physicians, affectionate friends, and, above

all, by one who never left him, he passed slowly and quietly to his end. At midday on Monday, March 26, death placed the final seal upon the sad and painful record. Dr. Wible was remarkable as a man; never was there one truer, braver, purer, more noble. As a physician he was always a close student, a successful practitioner, a devoted guardian of those confided to his care. It would be difficult to say in which walk of life he was more justly beloved. He lived without enemies and has died lamented by numerous and devoted friends. It is a solace to these to know that, though his earthly advisers were powerless to give him material relief, he had early sought and found the Great Physician who giveth not only true relief but enduring rest. To place the choicest flowers upon the graves of those we love is one of the tenderest traits, one of the most beautiful customs of our kind; but what is far more tender, far more beautiful than this, is to see those who valued the dead, gather themselves together to offer creations purer than flowers, and far more enduring—the expressions of genuine friendship and sincere affection. These will live, and live long after the choicest floral offerings that can be placed upon the coffin have lapsed into dust and nothingness. But whether the rarest exotics be placed upon the tomb of our friend, or whether his virtues be embalmed in words of tenderest eulogy, far more valuable than these is the offering which he himself brings before us to-day—the record of a life useful, blameless, and beautiful.

E. S. GAILLARD.

At the twenty-first annual session of the Kentucky State Medical Society, held at Hopkinsville, April, 1876, the following resolution presented by Dr. J. A. Larrabee was unanimously adopted:

Resolved, That Dr. L. Beecher Todd, of Lexington, be hereby appointed Chairman of Special Committee on Memorial, in honor of the late Dr. Joseph Smith, to report at next meeting at Louisville, April 3, 1877.

R. W. GAINES, M. D., *President of Kentucky State Medical Society:*

Sir—In accordance with the above resolution, I have the honor to present the accompanying memoir of Dr. Joseph Smith, of Lexington, Ky. Most respectfully,

L. B. TODD.

LEXINGTON, KY., March, 1877.

Dr. Joseph Smith.

1815. LEXINGTON, KY. 1875.

Dr. Joseph Smith, descended from an ancestry which contributed to render Kentucky, in early and perilous times, remarkable for high character and heroism, was born on a day of note in the historic annals of our country—January 8, 1815—near Danville, in the county of Boyle, receiving his education at Centre College. Doubtless his association with the men of piety and learning, who rendered that institution ever famous, made the impressions upon his character which he exhibited so strongly in after life. He was graduated in the Medical Department of Transylvania University in its palmy days, in his twenty-first year, with credit and distinction, and his thesis presented upon that occasion has been spoken of as exhibiting great care, much study, and valuable research. Two years subsequently, in 1838, he took a degree in medicine from the time-honored University of Pennsylvania, at Philadelphia. He immediately went to Lancaster, and, after a brief residence there, returned to Danville, where he practiced his profession for thirty years with remarkable acceptability and great success, his practice extending over a large section of country, and numbering among his patrons and patients the best, most useful, and influential citizens of that highly-favored country.

Care, caution, and kindness, characterized his attention to the sick, who always esteemed him highly and remembered him gratefully, which no one could have done more than the writer, whom he skillfully restored from an attack of typhoid fever when a college-boy, just twenty-five years ago.

In early manhood he made a profession of religion, uniting with

the Christian Church; and it is not too much now to say that he lived the life of the Christian indeed, and all who knew him will mourn when they shall hear that he is no more, yet knowing well that such a life must have ended in perfect peace.

Eight years ago, in June last, he removed to Lexington, and such was his reputation that he at once took high rank in his profession, in his church, and as a citizen, which he sustained without blemish until death closed his useful career.

He was a member of the board of curators and of the executive committee of Kentucky University, and when in 1873 the reorganization of the medical department connected with the University was contemplated, the important chair of Obstetrics and Diseases of Women and Children was tendered to Dr. Smith. Being a member of the Kentucky State Medical Society, he was re-appointed for three consecutive years, chairman of the committee on finance, and presented each year a valuable and highly-acceptable report, which was ordered to be published with the transactions; and he had the honor of an appointment as a delegate to represent the State Society in the American Medical Association at Louisville in May last.

Thus in the very prime of life, while benefiting many with his experience, gained by long-continued toil in mines where rich treasures lie, after a rare, brief, and distressing illness, which he bore with resignation and fortitude, he was summoned away.

Such a citizen, of pure character and usefulness, and without reproach, the state can ill afford to lose. The church below has but sent to the celestial city one who in his earthly warfare ever bore his armor bright and unspotted by the world, and the medical profession registers another faithful servant safe in the land of the hereafter, where sickness and sorrow, pain and death, are unknown.

Professor Joseph Desha Pickett, of Kentucky University, an intimate friend, one capable of appreciating his high character and great worth, thus writes:

"It is due to this man of God and to the Church of Christ that a special offering be made in this paper to his memory. . . . . .

"It is not, however, of the professional reputation of Dr. Smith that we desire to speak particularly, but of his true and unpretending worth as a follower of the meek and lowly Jesus. At a very early

age he received from his saintly mother, spiritual impressions which he cherished through life. Indeed his given name was a monument of her faith and affection. The devoted mother had so intimately interwoven her own beautiful life into his that it was observable to the very last. In his fifteenth year he had united with the Cumberland Presbyterian Church, but in 1837 he became a member of the 'Church of Christ.' His growth in grace and in the knowledge of our Lord and Saviour Jesus Christ, was eminent.

"In 1850 the writer of this notice became acquainted with brother Smith at Danville, and never has he forgotten the distinguished regard entertained for his character as a citizen, a physician, and a Christian, in that polite and intelligent city. Under the efficient eldership of Joseph Smith and Samuel Ayres, and under the preaching and direct pastoral charge of R. C. Ricketts, the Church of Christ at Danville was proverbial for its faith and good works. It was indeed a positive power in the Current Reformation.

"In 1867 brother Smith came to Lexington to practice his profession, educate his younger sons at the University, and pursue his quiet walk with God. He promptly identified himself with the church in this city, and soon established a deservedly high reputation for his knowledge of the Scriptures, his aptness to teach, and for the spirituality of his daily walk and conversation. This led to his election as an Elder, in which capacity he served the church with honesty, ability, and zeal. His views of the divine life were clear, practical, and full of charity. Truly loving the church, he ever longed to realize within its bosom a true home, and to make it a true home for all who loved the Lord.

"Genial and spiritual in high degree, both in his private and public ministrations, he delighted to dwell on the life and love of Christ. It was a great gratification to him to teach the Scriptures, and his clear and faithful expositions of the sacred text, in his loving spirit, will be fondly recalled by many. He finally resigned the important and responsible office to which he had been called, but this did not diminish his solicitude for the peace and prosperity of the church.

"As a curator of Kentucky University and as a member of its executive committee, brother Smith met his onerous responsibilities with fidelity.

"In the midst of many trials, he preserved his integrity in Christ. Patient and uncomplaining, no rebellious murmurings escaped his lips. Prayerfully aiming to do his duty in all his relations, personal, professional, and official, his trust in God was firm and unshaken.

"At last his weary body began to give way. In July last, he calmly informed the writer that he did not expect to recover. His belief that death was not far distant was expressed so peacefully, submissively, and spiritually, that it partook of the sublime. Yielding to the advice of physicians and friends, he repaired to Point-au-Pelé, near Put-in Bay, with a faint hope of recovering, in some degree, his health and strength. While there, in reply to a letter from the writer, he says: 'I have missed the Lord's house and public worship very much.' 'There has been scarcely any open manifestation among those sojourning here. Under solicitation I have held worship several times, and once broke the loaf. Nearly all present were members of the church.' * * * 'For the sake of helping my dear wife and younger children, I would much rather the Lord would restore me to health again. I try to say from the depth of my heart, Thy will, not mine, be done.'

"On the 7th of September, brother Smith returned to his home, but only to die, as was evident to many of his friends. His last days were beautiful in his abiding and transcendent faith in Jesus. Perfectly resigned to the Divine will, not a shadow or a fear fell upon his soul.

"Among his last words were, in solemn communion with himself, 'The dead in Christ shall rise first.' His devoted wife, who was watching beside him, asked, 'Father, is there any thing you want now?' Pointing upward, he replied, 'Let me go! in my Father's house are many mansions. I hope my Saviour will come this evening, and not wait for to-morrow.' 'Mother, talk to them (the children) of the great work of the Saviour.' He repeated several lines of a favorite hymn,

"'There is a fountain filled with blood,'

and said, 'Mother, sing it for me.' With a faltering voice, but faithful heart, she responded to the wish of the dying husband.

"When speech failed him, the serene and spiritual look, the warm pressure of the hand, gave assurance of his conscious and sublime

faith in Him who is the 'Resurrection and the Life.' The final summons came. He was 'ready.' In the presence of faithful, loving friends, and of angels of God, his spirit left its weary abode, calmly, peacefully, without a struggle or a sigh.

"Before a large and sympathetic audience, in the Main-street Church, Elder R. C. Ricketts, sr., pronounced a discourse over his mortal remains, from Psalm xxxvii, 37: 'Mark the perfect man, and behold the upright, for the end of that man is peace.' From the lips of one who had known him intimately for more than a quarter of a century, it was a true and eloquent tribute to the character of the deceased, in the various relations that he had faithfully maintained through life.

"Thus passed away a man of God, one whom many loved, one whom many miss and mourn. Through the blood of the everlasting covenant, may wife, children, and friends, look in firm faith beyond the dark valley, in confident hope of the heavenly re-union."

The funeral of Doctor Joseph Smith, which took place on Wednesday afternoon from the Main-street Church, was very largely attended. Rev. R. C. Ricketts, of Midway, preached the funeral sermon. Prof. Shackleford, Rev. C. K. Marshall, and Prof. J. D. Pickett, assisted him in the services. The church was crowded to its full capacity.

At a meeting of the physicians of the city of Lexington, Kentucky, on Wednesday at twelve o'clock, Doctor J. G. Chinn was called to the chair, and Doctor B. L. Coleman appointed secretary. The chairman stated the object of the meeting, which was to take action relative to the death of Dr. Joseph Smith.

The following gentlemen were appointed a committee to draft suitable resolutions: Doctors Todd, Skillman, Letcher, Bruce, and Stockdell. They presented the following, which were unanimously adopted:

Whereas, In the sad and mysterious dispensation of Almighty God, death has so soon again invaded the ranks of our profession and removed a brother and friend, Dr. Joseph Smith, in his prime and usefulness; and whilst we bow in humble submission to this afflicting providence, we desire, here assembled, to express, though feebly, our

appreciation of his worth and our sorrow at his death. Therefore, be it

Resolved, That in the removal, by death, from our midst, of Dr. Joseph Smith, our profession has lost an educated, useful, and active member of pure character and integrity; a Christian gentleman, who was ever vigilant in extending the benefits of his art to the suffering, to whom his attention was marked by faithfulness, kindness, and skill; whose intercourse with his brethren was characterized by that strict and high courtesy which so greatly endears one to another. He was ever loyal to his profession, guarding its honor as a sacred trust.

Resolved, That this community, in which he has resided but a few short years, has lost a citizen who, though retiring in manner, was faithful in the discharge of every duty, performing well his part amid the busy scenes of active life; a citizen such as a state can ill afford to lose.

Resolved, That we hereby tender assurances of condolence to the deeply-bereaved family of Doctor Smith, and that the secretary be requested to furnish them a copy of the foregoing.

Resolved, That, as a further evidence of our esteem and regard, when this meeting adjourns it do so to re-assemble at the late residence of Doctor Smith, and that we attend his funeral in a body.

Resolved, That a copy of these resolutions be furnished by the secretary to the medical journals of the state, to the president and secretary of the Kentucky State Medical Society, to the papers of our city, and that those of Danville be requested to copy.

J. G. CHINN, M. D., *Chairman.*

B. L. COLEMAN, M. D., *Secretary.*

All of which is respectfully submitted.

L. BEECHER TODD, M. D.

Chairman of Committee on Necrology.

At the close of this volume the Committee on Publication beg leave to say, that whatever merit the work may possess in the way of mechanical execution is due, in a large measure, to the valuable assistance afforded us by the courteous and enterprising publishers, John P. Morton & Co., of Louisville. Where the chirography is so varied, as is necessarily the case in the manuscript constituting the proceedings of a State Society, an occasional typographical error can not be avoided. We believe as few errors can be found as in any other publication of the kind.

COLEMAN ROGERS, M. D.,

Chairman Committee on Publication.